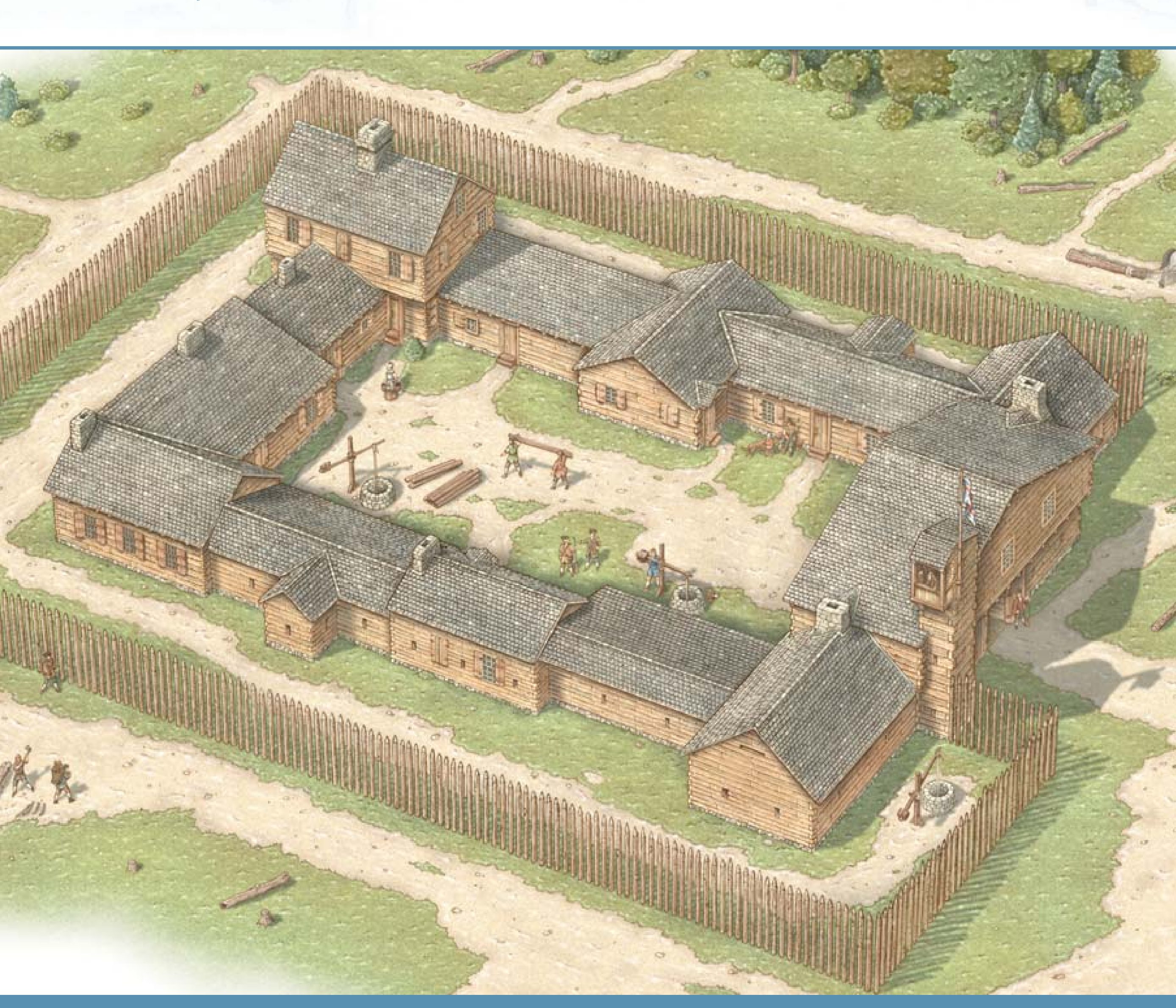
THE FORTS OF COLONIAL NORTH AMERICA

British, Dutch and Swedish colonies



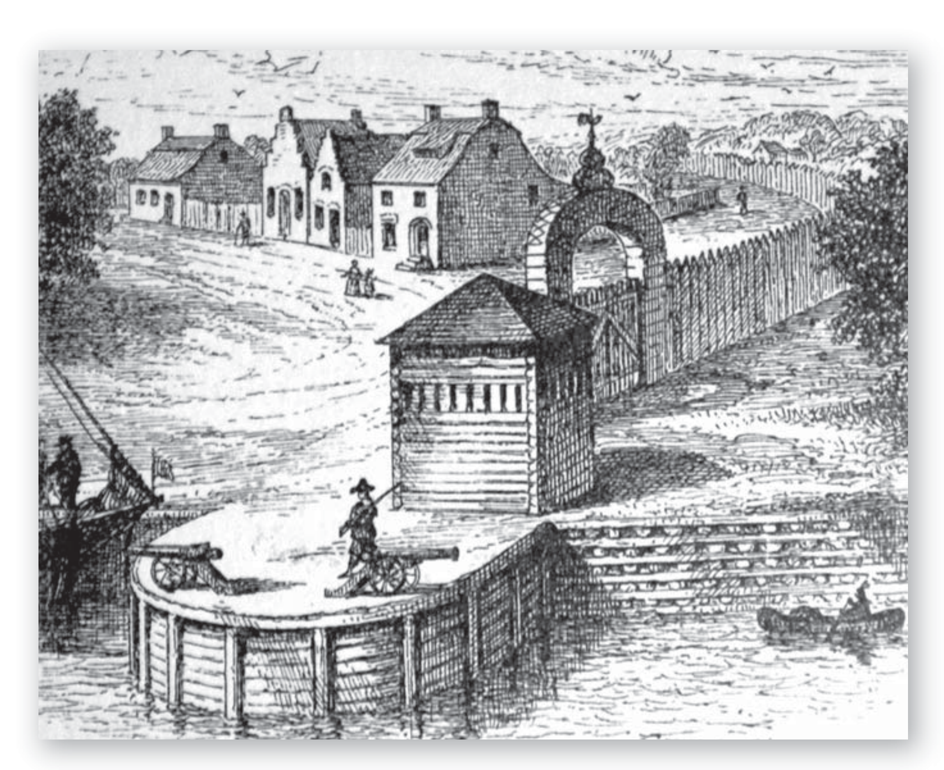
RENÉ CHARTRAND

ILLUSTRATED BY DONATO SPEDALIERE

FORTRESS • 101

THE FORTS OF COLONIAL NORTH AMERICA

British, Dutch and Swedish colonies



RENÉ CHARTRAND ILLUSTRATED BY DONATO SPEDALIERE

Series editor Marcus Cowper

CONTENTS

THE FORTS OF COLONIAL NORTH AMERICA

INTRODUCTION

The European colonization of North America was the result of endeavors by several nations. Explorers flying the English flag appeared on the North American coast as early as 1497 and many others followed. Viable, permanent settlements, however, would not occur until the beginning of the 17th century when English colonists built fortified dwellings, first in Virginia and later in Massachusetts. They were soon joined by Dutch traders and colonists who settled on the Hudson River and Swedes who did the same along the Delaware River. The latter were conquered by the former in 1655 and all seaboard colonies came under the flag of England (later Great Britain) from 1674. The population of these colonies had already reached about 115,000 men, women, and children. The Indian population is unknown, but it had been ravaged by epidemics and was a shadow of what it had been. Still, the Indians of the Eastern Seaboard were often understandably hostile to newcomers who seized their lands. Many European settlers also made it known that Indians were much inferior in all manners and, in the minds of some Puritans, were acolytes of the devil himself.

The forts built in the Thirteen Colonies were extremely varied in type and were built in very large numbers. They differed fundamentally from fortifications erected in French or Spanish colonies; France and, especially, Spain, had fortification programs sponsored by metropolitan governments intended for their colonial empires, and they were supported by their professional military engineers posted permanently overseas. Thus, remarkable and mighty fortresses guarded New Spain and New France; secondary fort networks with regular garrisons guarded the frontiers of western Canada and Louisiana while an extensive network of garrisoned Spanish "presidios" went from Texas to California. Nothing as extensive existed to protect the English, Dutch, or Swedish colonies. These colonies were often settled by religious refugees whose home country was happy to see them leave and was certainly not inclined to pay for their protection with soldiers and forts. They were also occupied by trading companies, who kept down military expenses as much as possible in order to satisfy shareholder expectations. Only from the second third of the 18th century were more substantial garrisons posted in the British colonies, but fortresses such as those seen in French or Spanish territories were never built in British North America. Even large masonry or brick forts were a rarity and were usually built by the colonists themselves, not by the home government. The

Major forts of the American colonies



largest of these forts, Castle William in Boston, was mostly built and garrisoned at the expense of Massachusetts.

So-called "frontier forts" were by far the most common forts in the American colonies. There were probably many thousands of them and they can be classified into three broad categories: residential fortified garrison houses or blockhouses, small stockade forts with one or several buildings within, and the larger "militia" forts that might be sizeable stockades or earth-and-timber structures with bastions or corner blockhouses.

CHRONOLOGY

1528	English sailors build first permanent structures at St John's, Newfoundland.
1583	Sir Humphrey Gilbert officially takes possession of Newfoundland for Britain.
1585	Fort Raleigh built at Roanoke Island, North Carolina.
1607	Jamestown, Virginia, established and becomes first permanent English settlement. Fort George, Maine, established, but abandoned in 1609.
1610	English colony established at Conception Bay, Newfoundland. It fails, but other small permanent settlements are made on the island in the following decades.
1614	Following Henry Hudson's 1609 explorations of the Hudson River, Dutch traders establish forts in the Hudson River Valley; colony becomes the New Netherlands.
1620	Plymouth Colony founded by Pilgrims in Massachusetts.
1630	Boston founded by Puritans who also settle much of Massachusetts, New Hampshire, Rhode Island, and Maine in the following years.
1633	Maryland colony founded under a charter granted to Lord Baltimore.
1638	First Swedish settlers arrive in Delaware, who build Fort Christina and other posts.
1655	New Sweden falls to the Dutch.
1664	The New Netherlands falls to the English; it is retaken by the Dutch in 1673, but is returned to England in 1674.
1670	First settlers in South Carolina found Charleston. Hudson's Bay Company founded and builds forts on the bay's southern shore.
1675–76	King Philip's Indian War rages in Massachusetts, Connecticut, New Hampshire, and Rhode Island. Many small forts and garrison houses built.
1681	Pennsylvania chartered as a proprietary colony for the Society of Friends (the Quakers).
1689–97	War of the League of Augsburg, which involves many nations including England, France, and Spain. Many forts built in England's American colonies.

1702–13	War of the Austrian Succession (or Queen Anne's war) between France, Britain, Austria, and most of Europe's countries and their colonial empires.
1713	French posts in Acadia (henceforth Nova Scotia, Newfoundland, and Hudson's Bay) ceded to Great Britain by the Treaty of Utrecht. French retain Cape Breton Island and Prince Edward Island.
1720s	British traders establish a trading post and later a garrison at Oswego, New York, the first English fort on Lake Ontario.
1733	Colony of Georgia founded. Frederica, a fortified town, founded in 1734.
1739	"War of Jenkins' Ear" between Britain and Spain.
1744–48	War of the Austrian Succession; many forts built including first fortifications built at Philadelphia in 1747–48.
1749	Halifax, founded in Nova Scotia, quickly becomes an important military and naval town.
1753–56	French and Anglo-Americans clash in Ohio Valley, warfare erupts and is officially declared by France and Britain in 1756. Many forts are built in Britain's American colonies.
1758	Fort Louisbourg and Cape Breton Island fall to the British in July. Building of forts along Forbes Road, Pennsylvania. Fort Duquesne is evacuated and destroyed by the French in December; the British build Fort Pitt near its site. Fort Stanwix, New York, is built.
1759	Fort Crown Point, New York, occupied by British who build a huge fort there. Fort Niagara and Québec are taken and occupied by the British.
1760	French army in Canada surrenders at Montréal on September 8. French garrisons in the Great Lakes replaced by British troops in the following months.
1763	By the Treaty of Paris, France cedes Canada and land up to the east bank of the Mississippi River to Great Britain. Spain cedes Florida to Great Britain. Huge uprising against the British by western Indians under Chief Pontiac; many small forts are taken, but the revolt is crushed by troops at Bushy Run.

THE EARLY FORTS

Great Britain's interest in North America dates back to the end of the 15th century. Only five years after the Italian navigator Christopher Columbus had discovered America for the benefit of Spain in 1492, King Henry VII of England sponsored another Italian mariner then living in Bristol, John Cabot, on a voyage of discovery in northern latitudes. Accompanied by his son Sebastian, Cabot came upon the American continent in June 1497. The landfall he made is uncertain; it might have been Cape Breton Island (now part of Nova Scotia, Canada), while English seamen's tradition suggests that on June 24, St John's day, their ship, the *Matthew*, entered the harbor of what became the town of St John's, Newfoundland. The next year, Sebastian Cabot

On August 5, 1583 Sir Humphrey Gilbert landed at St John's, claimed the island of Newfoundland in the name of Queen Elizabeth I as an English possession, and cut the first sod. During the following month, Gilbert's colonizing efforts were plagued by terrible storms, widespread illness, and a mutiny, and he perished in a shipwreck the following month. (Print after Beatrice Home's 1924 *Peeps at the History of Canada*)



was back exploring the North American coast with two ships flying the English flag, looking for the elusive North West Passage to China and India, and he may have sailed as far south as Cape Hatteras. These explorations gave England a well-founded claim to the northern part of the American continent.

There had actually been other Europeans sailing in these waters for half a millennium. The Vikings had even made settlements on the coast of Greenland and Newfoundland that had by this point vanished, largely due to the 14th-century climate changes. Basque fishermen may have hunted whales on Labrador's coast from the middle of the 15th century according to their mariner's traditions. But no one realized that these northern lands formed part of a new continent.

Portuguese, Spanish, and French as well as English mariners explored the North American coast over the next decades, while the fishing fleets of those nations regularly sailed to the Grand Banks for cod and to Labrador for whales. As early as the 1520s the harbor of St John's was a gathering point for English sailors and, in 1528, an English merchant named Bute built the first



Reconstruction of Fort Raleigh, first built from July 1585 and abandoned in June 1586. The colonists were led by Ralph Lane and were sponsored by Sir Walter Raleigh, hence the fort's name. It was reconstructed by the National Parks Service in 1950 according to archeological evidence found in 1947–48. The fort's plan consisted of an elongated square with pointed bastions on three corners and a round bastion on the south side. It contained at least one building. (Library of Congress, Washington)

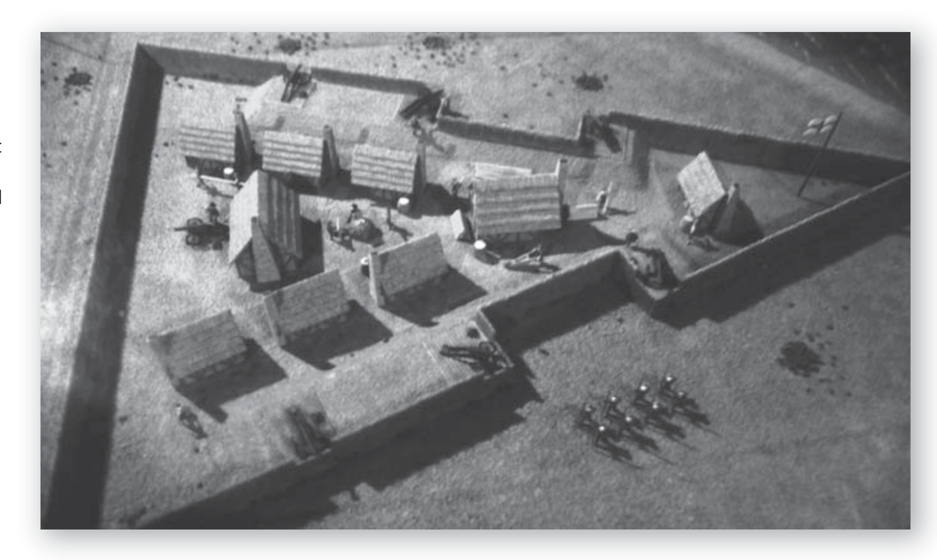
permanent residence there. The area was not yet officially English, and ships of other nations also used the harbor, notably the French explorer Jacques Cartier in 1542. That changed on August 5, 1583 when a fleet bearing a colonizing party landed at King's Beach and Sir Humphrey Gilbert officially took possession of Newfoundland for Queen Elizabeth I of England. By then, according to Captain Hayes of the *Golden Hind* (one of Sir Humphrey's ships) St John's was much frequented by ships and had substantial houses for merchants doing business there.

Newfoundland took on a definite military importance two years later when St John's was used by Bernard Drake as a base for English ships to go after Spanish vessels; about 22 were taken and his efforts were rewarded by a knighthood granted by the Queen in January 1586. There was plenty of shipping in the area at that time. Besides corsairs there were also pirates, including the famous Peter Easton who even had a fort built in the late 1500s at his base at Harbour Grace in Conception Bay.

During the 1580s, Sir Walter Raleigh sponsored several attempts to settle "Virginia" (actually now in North Carolina). In July 1585 a fleet under the command of Sir Richard Grenville landed a party of 108 settlers on Roanoke Island. One of the officers, Ralph Lane, was put in command and built a "newe forte in Virginia" named Fort Raleigh that featured earth bastions and curtain walls. At least one, possibly two, small buildings were inside the fort. Lane was no diplomat with the Indians, who refused to trade any food with the colonists. Faced with starvation, the colonists all returned on Sir Francis Drake's ships, which appeared at Fort Raleigh in June 1586.

Sir Walter Raleigh did not give up and, in April 1587, dispatched another expedition to Roanoke, consisting of three ships carrying about 150 settlers and sailors. The Roanoke colony was founded in the summer of 1587 by Governor John White, who later came back to England to get supplies leaving 89 men, 17 women, and two children in the settlement. By his own account, the settlement was "strongly enclosed with a high palisade of trees, with cortynes [curtain walls] and flankers [bastions] very fort-like." The war with Spain delayed ships returning there until August 1590. When White and his men

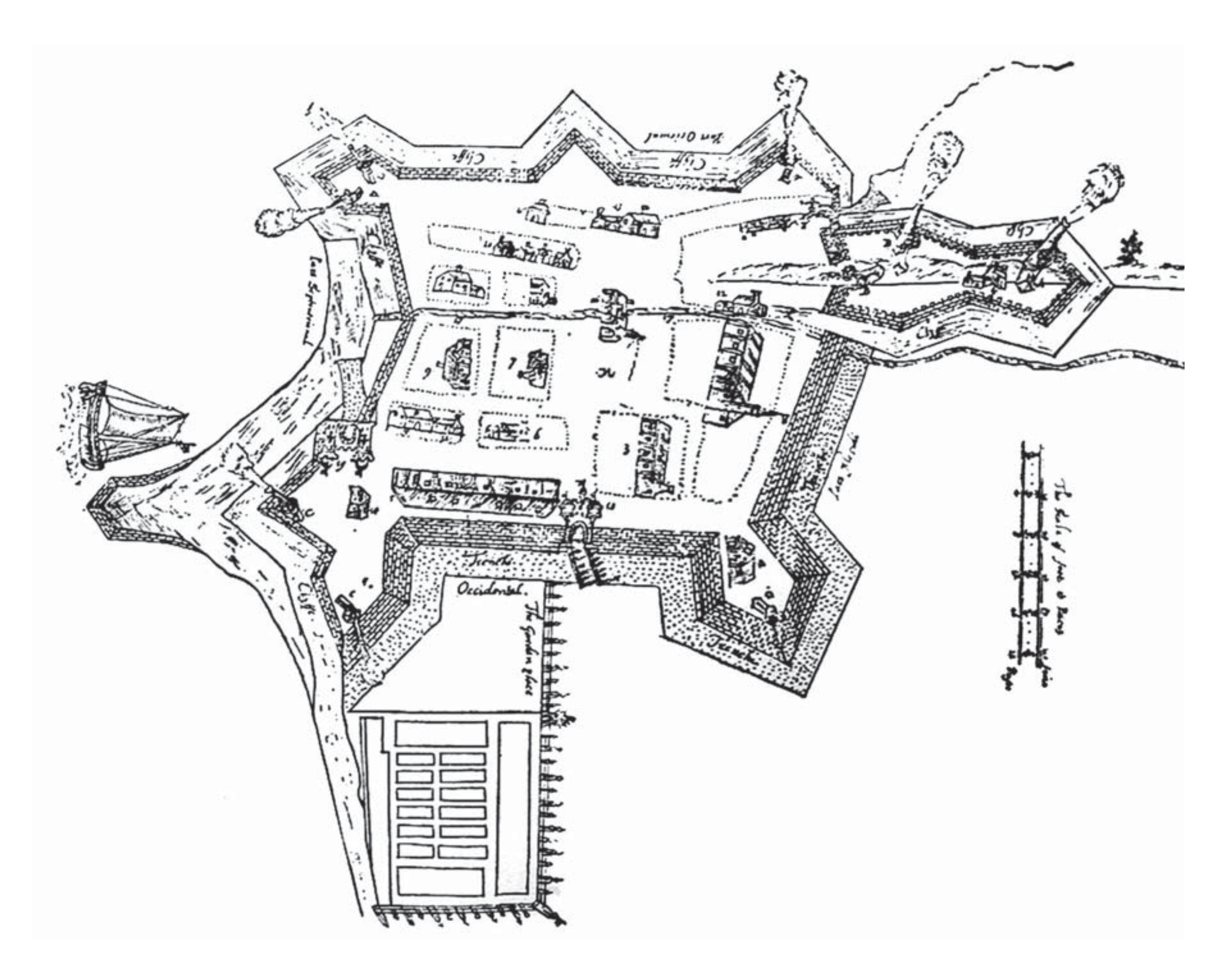
Fort Algernon, *c*.1611. Built in 1609 at Point Comfort (near Hampton, Virginia), this coastal fort had four guns in 1611 and seven guns by 1614. It was built on a triangular plan, which was generally used for early colonial American forts. It had to be rebuilt after accidentally burning down in 1612. Also called Fort Point Comfort, it was eventually abandoned in 1622 but restored in 1632; it was abandoned again in the 1660s. (Model at the Casemate Museum, Fort Monroe, Virginia)



landed, the colonists had vanished and all that remained were the remains of the fortifications and buildings. One of the trees or palisade posts bore the inscription "CROATAN." the significance of which remains enigmatic. The fate of "The Lost Colony" is one of the great mysteries of American history.

In late May 1607 English settlers landed in Virginia and built Fort James, which soon became known as Jamestown. The initial fort was a stockade laid out on a half-moon plan. Within weeks a larger and stronger structure was erected. It was laid on a triangular plan with three rounded bastions connected by a stockade about 14ft (4.2m) high, surrounded by marshes on the landward sides. The bastions had several pieces of artillery. Although destroyed by fire in January 1608, it was quickly rebuilt. Relations with the Indians soured and they blockaded the fort during the winter of 1609–10, causing many colonists to die of disease and hunger until a relief expedition arrived in June. In spite of the many hardships, the surviving settlers stayed on and were joined by others, so Jamestown became the first permanent English settlement in America. The increasing population, bolstered by African slaves from 1619, led to the expansion of the town that was the first capital of Virginia. Other communities appeared farther inland and along the Chesapeake Bay area, which had some 2,500 settlers by 1630. One of the earliest secondary forts was the strategically located Fort Algernon (spelling varies) built in 1609 at Point Comfort (near Hampton). Forts Henry and Charles were also built in 1610 on the east and west sides of the Hampton inlet, but later abandoned. The town of Henricus, founded in 1611, had a palisade with five watchtowers and a ditch outside. It was initially intended to replace Jamestown as Virginia's capital, but it was destroyed during the great Indian uprising in 1622. Early relations between the settlers and the Indians were often uneasy. The more militant Indians wished to exterminate all settlers, which resulted in a ten-year war that claimed the lives of about 400 settlers and probably far more Indians. Many small forts and fortified houses were built at this time and again during the 1642–44 Indian war. Eventually, Jamestown became less important, its fort was abandoned, and the government moved to Williamsburg in 1699.

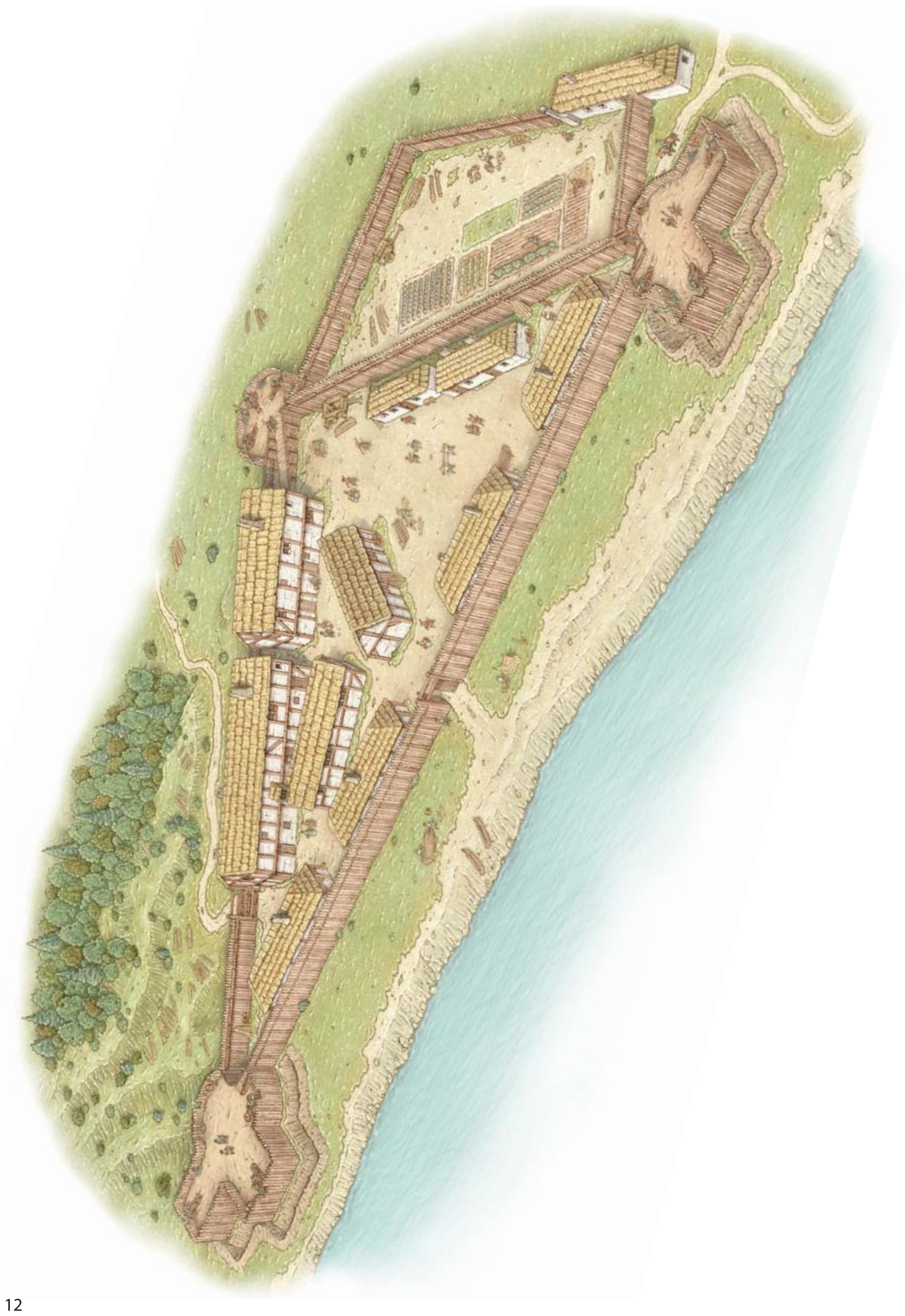
In 1607 the Plymouth Company sponsored another English settlement attempt, which was made on the coast of the present state of Maine under the command of Sir John Popham. The Indians were sullen. For their safety,



the colonists built a substantial fort with dwellings at the mouth of the Kennebec River (Bath). About 55 emigrants stayed for the winter, which turned out to be very severe, and the hardship experienced was compounded by the accidental burning of the storehouse along with most of the provisions. Many perished of disease, including Popham, and the colony was abandoned in 1609.

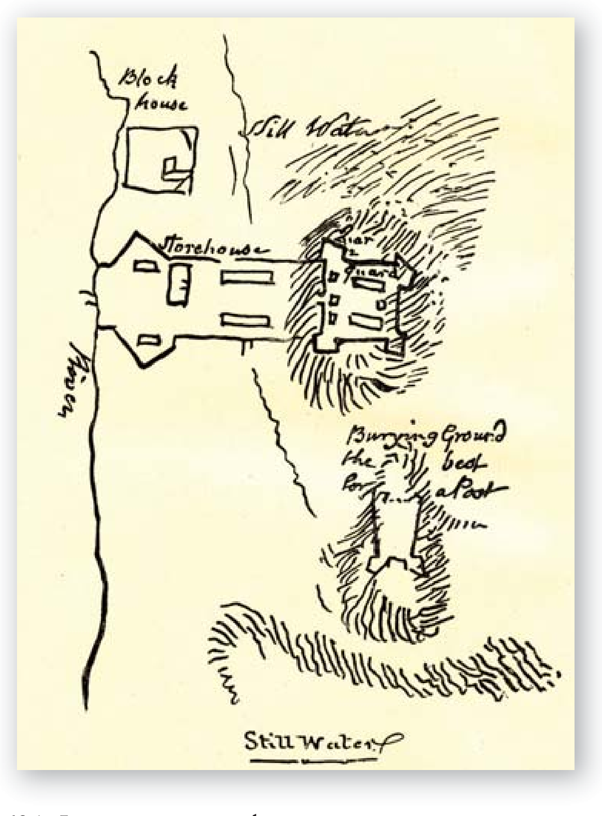
Thereafter, the Plymouth Company maintained fishing operations off the coast of "New England" and, on November 9, 1620, another Plymouth group of over a hundred settlers arrived in sight of Cape Cod (Massachusetts) on board the *Mayflower*. They explored the area until 21 December when they found a good site and began building a number of buildings enclosed by a palisade, which became "Plymouth Plantation." Miles Standish, a military veteran, was elected commander and in the early months of 1621 a defensive perimeter was built on a high point, which included a small fort from which stockade walls with flankers ran to the shore. Six years later, the fort on the hill was described by Isaack de Rasieres as "a large square house, with a flat roof, made of thick sawn plank, stayed with oak beams, upon the top of which they have six cannon" that "command the surrounding country." In the center of the town was a square stockade "upon which four patereros are mounted, so as to enfilade the streets." These settlers were religious refugees from England: the Pilgrims. They were well armed and "constantly on their guard night and day." Their colony survived, but by 1629 it still contained only around 300 settlers. However, the English were not the only ones setting up colonies on the Eastern Seaboard.

Fort George, Maine, *c*.1607–09. Built from August 1607 at the present town of Bath on the coast of Maine by English settlers under Sir John Popham, this establishment featured bastions mounted with guns, but was abandoned in late 1609. (Print after a contemporary plan)



NEW NETHERLANDS

In September 1609 explorer Henry Hudson went up the river that would bear his name as far as present-day Albany, the capital of the state of New York. Although English, he was exploring for the Dutch East India Company, seeking a northwest passage to Asia. There was no passage, but Hudson took possession of the areas he discovered for the Netherlands. Dutch traders soon realized the commercial possibilities of the "New Netherlands" and by 1612–13 they had built a few rough log cabins on the southern end of the island of Manhattan for shelter. In 1614 Dutch traders went up the Hudson River and built Fort Nassau, a small trading post garrisoned by a dozen men on Castle Island (now disappeared and somewhere under the port of Albany). It consisted of a house that was 26ft (7.9m) wide by 36ft (11m) long surrounded by a stockade of $58ft^2$ ($15.2m^2$) with an 18ft-wide (5.4m) moat outside. It was armed with two cannon and 11 swivel guns. The site proved problematic, with frequent floods occurring, and it was abandoned in 1617 or 1618. By then Dutch fur traders were active on a more-or-less seasonal basis with more huts being built on Manhattan Island.



Fort Still Water, 1757. A fort was first built at this site in 1709 on the east bank of the Hudson River in order to prevent surprise raids. By the late 1750s it was the location of an important supply depot for British forces moving towards Canada. It was strongly fortified with a blockhouse, palisades to protect the storehouses, and a fort on the nearby bluff. (Print after a plan by John Montresor)

The Dutch West India Company was formed in 1621. It was a monopoly trading "multinational" empire that had vast powers and was entitled by the Netherlands to operate from Newfoundland to Cape Horn in America as well as on the African coast. It had the means to carry out its ambitions; its fleet included 32 warships as well as many merchant vessels. The Hudson Valley territories, and others adjacent, were part of the company's grants and, in March 1624, it brought 30 families to establish settlements in the New Netherlands. These first settlers were mostly Walloons (French-speaking and Catholic) and they founded several posts such as Walloon's Bay on the western end of Long Island (Brooklyn). In May some 18 families went up the Hudson River and built Fort Orange on the mainland (at the foot of present Madison Avenue, Albany) using logs. It was described in 1646 by Father Jogues, a French missionary, as "a miserable little fort called Fort Orange, built of logs, with four or five pieces of Breteuil cannon and as many swivels." The fort's walls were later described as being earth-filled palisades. It was built on a square plan with corner bastions. Archaeological excavations made in 1971 revealed that the fort had a stone counterscarp and a moat around it. There were at least four buildings inside and one or more had large red tiles that

A JAMESTOWN, 1607–10

Construction of "James Fort" began on 28 May 1607 and was finished on June 15. According to George Percy, one of the first settlers in Virginia, it "was triangle-wise, having three bulwarks in every corner like a half moon, and four or five pieces of artillery mounted in them." Three years later, William Strachey wrote that Jamestown was "cast almost in the form of a triangle and so palisaded… To every side, a proportioned distance from the palisade, is a settled street of houses… In the midst are a market place, a storehouse, and a corps de garde [guard house], as likewise a pretty chapel." Thus was the first permanent English settlement in America. Repaired and remodeled several times thereafter, the original fort probably existed until the middle of the 1620s.

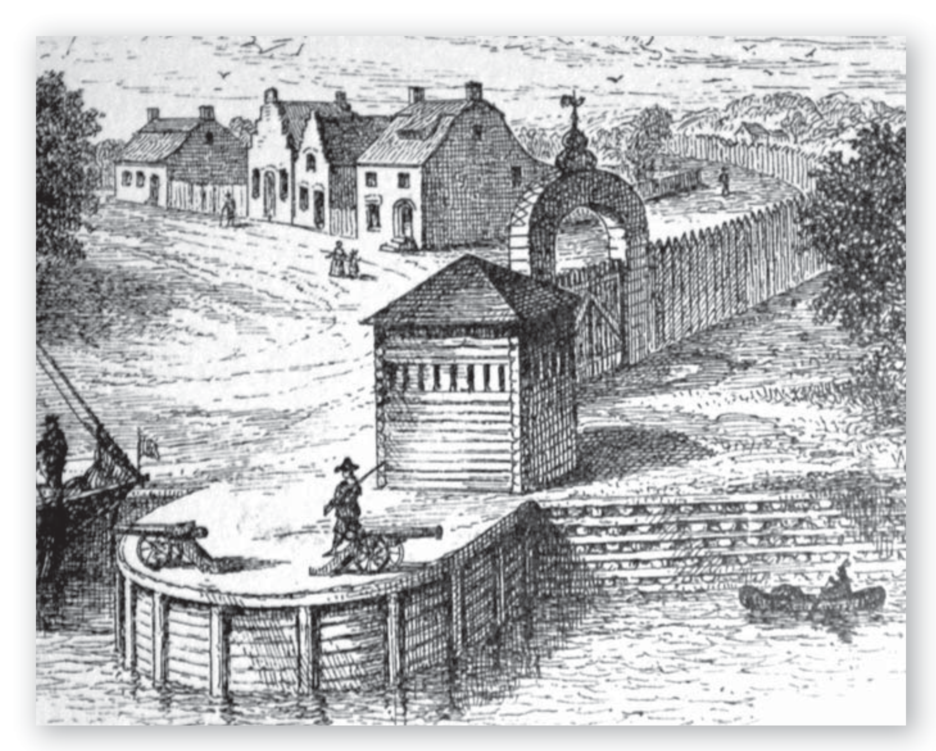


Detail of a map of New Amsterdam, 1639. The bastioned Fort Amsterdam can be seen at the center, on the tip of Manhattan Island, next to some windmills. The nascent town is to the right. Little houses with red roofs indicate various small settlements and "plantations" in the area, some having brown tower-like structures that were likely blockhouses or fortified structures, notably across the Hudson River (top). These were likely amongst the first fortifications built by Europeans in what is today the state of New Jersey. (Library of Congress, Washington)

made their roofs fireproof. In 1626 Indians killed the fort's commander and three of his men in nearby woods, following which most of the settlers were temporarily evacuated to safety in Manhattan.

The Dutch West India Company decided to build its headquarters at the entrance to the Hudson River, which was recognized as being the most strategic location in the area. In 1624, some of the Walloon colonists temporarily settled on Noten Eyland (now Governor's Island in New York City's harbor) and built a small fort that appears to have consisted of a wooden blockhouse surrounded by pickets. The following year, the southern tip of Manhattan Island was selected for permanent settlement and the colonists moved there. Peter Minuit became "director" (governor) of the colony, bought Manhattan Island from the Indians, and, in June, construction started on Fort Amsterdam according to plans made by engineer and surveyor Cryn Frederycksz. This stone fort was designed to resist a seaborne attack from a European enemy as well as to provide an impressive headquarters for the government of the New Netherlands to awe visiting Indians, or anyone else. It was first intended that the settlers would live inside the fort, but this proved impractical when more colonists arrived from the Netherlands. As it turned out, there were few available workmen to build this sizeable fort together with its annexes, and construction went on until 1635. The church in the fort was added in 1642. From 1633, the fort also had a sizeable garrison of over 100 men. Fort Amsterdam did not undergo great changes thereafter.

The town that grew around the fort became known as New Amsterdam (New York City), incorporated as a city in 1653, and was the home of about half of the 1,000 Dutch men and women living in the New Netherlands by the middle of the 17th century. The colony's population grew by leaps and bounds over the next 15 years, reaching about 9,000 souls in 1664 under the rule of Director-General Peter Stuyvesant, who had arrived in the New Netherlands in 1647. He was a crusty peg-legged fighting veteran, famous for



The Water Gate of New Amsterdam's palisade wall, *c.*1655. Wall Street – the name of which would become famous in world finance and banking – starts at the gate and borders the palisade. The water at the bottom is the East River. (Print in James Grant's 1892 *Memorial History of New York* after period maps and engravings)

his hot temper and autocratic ways, but also known as a shrewd and fair ruler. His predecessor, the undiplomatic and quarrelsome Director-General William Kieft, had become embroiled in a war against Mohawk Indians during 1643–45, which had led to his recall. Up until Stuyvesant's administration the town was an open city with no fortifications at all, which left its landward side totally exposed to attack. There were hostilities with Indians in 1640–43 and 1653, but the town was not attacked. While promoting peaceful relations with the Indians, Stuyvesant felt New Amsterdam was too vulnerable to raids and, in 1653, had a palisade built right across the island of Manhattan from the Hudson River to the East River. This timber wall was said to have had its planks laid horizontally, but is shown as being made of vertically planted timber in early prints, about 6–12ft (1.8–3.6m) high. It had five small bastions. It was pierced by two gates, one in the middle of Broadway Avenue and one at the river's edge on the east side called the Water Gate. It was not a formidable obstacle and had no ditch, but was sufficient to stop a small raiding party of Indians or pirates. A street was built along the length of the wall from Broadway to the Water Gate, which came to be known as Wall Street. Now renowned as the center of American financial activities, very few people suspect that Wall Street got its name because of the early fortifications of New Amsterdam.

Up the Hudson River, more settlers also arrived at Fort Orange, and as the town grew houses were built farther away from the protection given by its fort. The potential menace from nearby Indians worried the inhabitants. In 1656, to give these outlying homes some protection, a blockhouse that doubled as a church was built featuring loopholes for muskets and three cannon on top. It was built farther west and up the incline of the hill that dominated the settlement. In September 1659 work started on a stockade that eventually enclosed the whole town by April 1660. The somewhat old and decrepit Fort Orange was not a very formidable defensive work since,



Plan of New Amsterdam, *c.*1655–60. By the middle of the 17th century the town had grown to about 900 inhabitants. Fort Amsterdam is prominent at the upper left. The wide street starting at the fort is Broadway. Note the canals, like in old Amsterdam, in the middle of the streets below. The town's landward side is enclosed by a stockade wall punctuated by small bastions crossing the length of Manhattan Island. Running alongside this palisade is a street: Wall Street. (New York State Museum, Albany)

in 1661, it had only five cannon. In other instances Stuyvesant concentrated isolated settlers in a stockade village for their protection, such as Fort Wiltwyck which was built in 1658 at Esopus.

Dutch settlements also spread to other areas outside of the Hudson River Valley and Long Island. The Delaware River Valley attracted Dutch traders as early as 1623 when they built Fort Nassau, which was relocated and renamed as Fort Casimir in 1651. Fort Beversreede was a small trading post existing at what is now Philadelphia, Pennsylvania, between 1648 and 1651. These forts came into conflict with the Swedes (see chapter on New Sweden below). Following the 1655 conquest by the Dutch, the Swedish Fort Christina was renamed Fort Altena, and Fort Casimir, which had been christened Fort Trinity by the Swedes, was renamed Fort New Amstel. There were also Dutch settlers and traders in Connecticut and, in 1633, they built Fort Huis de Goed Hoop (Hartford), which was a blockhouse armed with a couple of cannon surrounded by a palisade. The influx of thousands of English Puritan settlers in the area doomed the small Dutch settlement, which eventually integrated with the English colony of Connecticut. In 1637 Dutch traders also built a fortified trading post farther east, which became known as Fort Ninigret (Charlestown, Rhode Island). It measured 152ft (46.3m) long by 137ft (41.7m) wide with its corner bastions. It appears to have been abandoned shortly thereafter and later occupied by Indians.

In late August 1664 England and the Netherlands were at war when four British warships with 450 soldiers on board under the command of Colonel Richard Nicolls anchored off New Amsterdam. On September 8, 1664 the Dutch garrison marched out of Fort Amsterdam (renamed Fort James) and the town's name was changed to New York in honor of the Duke of York, the King of England's brother. Further north, Fort Orange's name was changed to Albany when an English garrison replaced the Dutch on



September 24 in order to commemorate the Duke's Scottish dukedom of Albany, and the whole colony was now christened New York. It has often been stated that the 1667 Treaty of Breda handed the colony back to the Netherlands, but this was not clearly stated in its articles. What is clear is that the English were still there when a Dutch fleet of 27 ships with 600 troops on board appeared in front of New York in early August 1673. After having landed they were joined by about 400 Dutchmen from the city. After a token resistance, the English garrison surrendered on July 29. In the following days and weeks, other English garrisons were relieved by Dutch soldiers and place names were again changed. In May 1674 news arrived that peace had been signed in Europe and that the colony was ceded to England. Within a few months the names were restored.

The Dutch surrender New Amsterdam to an English force, September 8, 1664. Portly and peg-legged Governor Peter Stuyvesant leads the Dutch troops out of Fort Amsterdam between two files of British troops. Although the costumes shown have many inaccuracies, this plate by late 19th-century American historical artist Henry Ogden gives a good sense of the setting for this event. (Private collection)

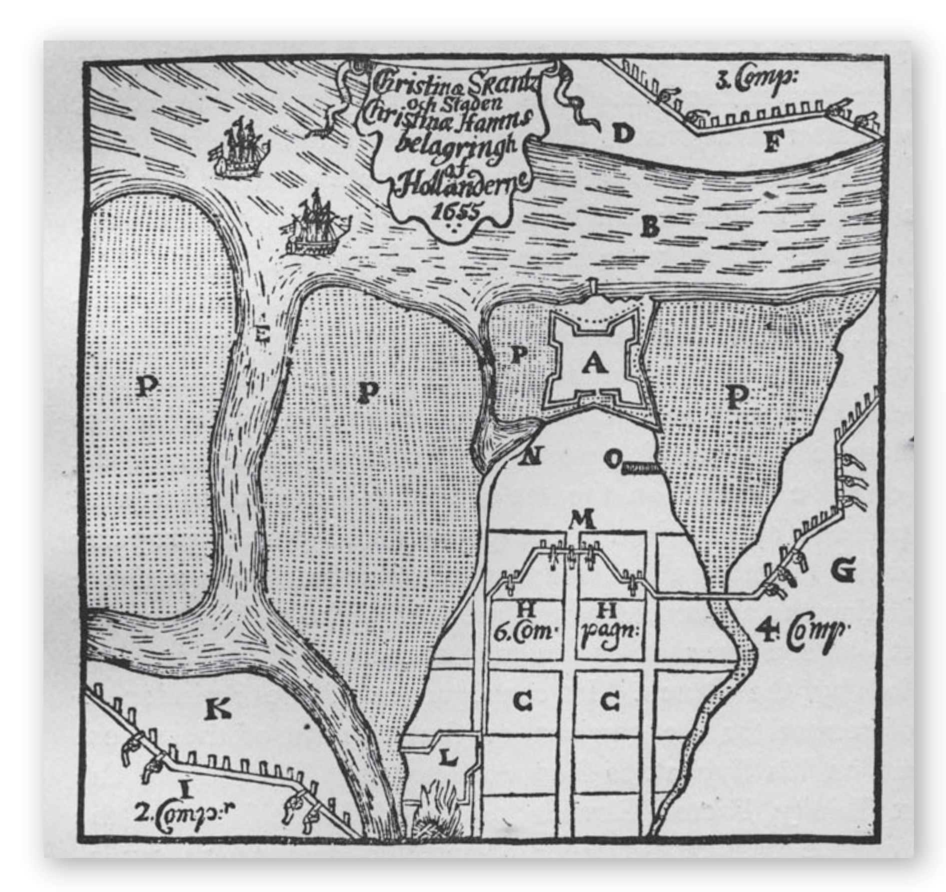
NEW SWEDEN

From the 1620s the Swedes became interested in establishing trading posts in North America. By the late 1630s heavy Swedish involvement in the Thirty Years War had decreased and an expedition to set up trading posts and settlements proceeded to the shores of the Delaware River. On March 29, 1638 the leader of the expedition, Peter Minuit, purchased land from five Iroquois Indian chiefs and then proceeded to build a fort, named Fort Christina, in honor of the queen of Sweden (at present-day Wilmington, Delaware). Minuit had been director of the Dutch New Netherlands between 1625 and 1633, and had since gone over to Swedish service. This first fort included two log houses within in order to lodge the garrison. It was the first permanent European settlement in the Delaware River Valley. The following year roughly 600 Swedes and Finns settled in the area.

By 1642 the colony had a military establishment that numbered, besides its governor, a lieutenant, a sergeant, a corporal, a gunner, a drummer, a trumpeter, and 24 private soldiers. Some of these men were detached to new forts. In 1643 Fort Nya Elfsborg was built of earth and wooden palisades on the Delaware River's eastern shore (between Salem and Alloway Creek, New Jersey) laid out in a triangular shape "after the English plan, with three angles" and was armed with eight brass 12-pdr guns. This fort was badly sited as it was near swamps, with the result that its garrison of a lieutenant and about a dozen men was constantly harassed by mosquitoes. It was strengthened in 1646, but this unhealthy place was eventually abandoned. Fort Nya Göteborg (Essington, Pennsylvania) was a log fort built the same year and armed with four brass cannon; it remained garrisoned until 1655. The settlement nearby was destroyed by fire in 1645 and later rebuilt. In 1647 Fort Nya Korsholm went up (now southwestern Philadelphia), conceived mainly as a trading post designed to prevent the Dutch from trading on the west side of the Delaware River. It was described by Governor Prinz as "a fine little fort of logs, filled with sand and stones, and surrounded by palisades, with sharp points at the top." Two fortified stronghouses were built nearby. In 1648 the Dutch built Fort Beversreede (a small trading post) nearby, but its access to the river was blocked by a Swedish trading post and it was finally abandoned in 1651. Fort Nya Korsholm was in turn abandoned by the Swedes in 1654 and later burned by Indians.

New Sweden developed rapidly between 1643 and 1653 when Johan Prinz was its governor. He was a stern and unpopular ruler, but the colonists that were settled on both shores of the Delaware River lived peacefully, thanks in part to his shrewd diplomatic relations with New Sweden's Dutch and Indian neighbors. During the mid-1640s he caused the colony's fortifications to be improved; Fort Christina was, by then, quite "decayed" and was reconstructed. This fort was laid on a square plan with four large corner bastions.

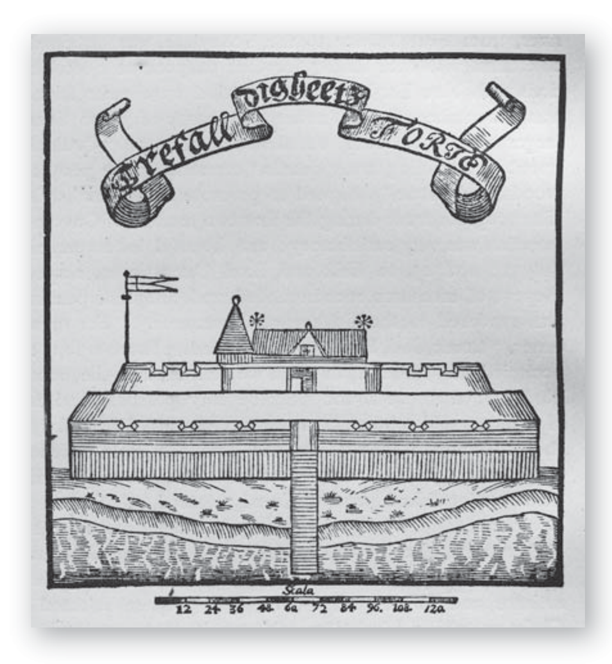
There had always been some tensions between the Swedes and the Dutch over who should control trade in the Delaware River Valley. As early as 1623 the Dutch had built Fort Nassau (Gloucester City, New Jersey), which became their main trading post on the Delaware River. In 1651 Governor Peter Stuyvesant of the New Netherlands had the fort dismantled, moved across the river (New Castle, Delaware), rebuilt, and renamed Fort Casimir. The fort was of earth and wood, each side being about 180ft (54.8m) in length and the walls about 12ft (3.8m) high. Each bastion had embrasures for four guns. Within was a quarters building and a structure with a conical roof that was used as a powder magazine.



Plan of the siege of Fort Christina by the Dutch in September 1655. The Swedish fort (A) is at the top. Above, across Christina Creek (B) is the Dutch "Snake" battery of four guns (F) with three infantry companies on Tennekong Land (D). At each side are flat lowlands covered with reeds (P). Below is the small harbor (N), a mine (O), and the town of Christina (C). The Dutch forward position (M) consisted of the "Rat" battery (H) of five guns with six infantry companies. At the lower right is the Dutch "Gnat" battery of six guns with four infantry companies (G). At the lower left is the "Fly" battery of four guns (I) with two infantry companies on Timber Island (K) and the Dutch force's kitchen (L). (Print after Johan Companius' 1702 *Kort Beskrifning em Provincien Nya Sverige*)

This fort was only 5 miles (8km) south of Fort Christina, and was bad news for New Sweden. It proved to be too much for its new governor, Johan Risingh, who arrived in June 1654. He immediately decided to rid Delaware River of any Dutch presence, brought his warship in front of Fort Casimir and summoned it to surrender on June 21. The fort's small garrison of a dozen soldiers was unprepared for such an attack, having hardly any ammunition, and surrendered to a party of Swedish soldiers. The fort was renamed Trefaldighet Fort (Fort Trinity) because the day it was taken was Trinity Sunday. The Dutch settlers were allowed to stay as long as they swore allegiance to Sweden. The Swedish flag now flew over the fort. The Swedes strengthened Fort Trinity by adding four 14-pdr cannon and a shore battery that could house six guns in front of the fort.

When the news of the fort's capture reached New Amsterdam, Peter Stuyvesant was enraged and considered the Swedish action a declaration of war. He bided his time and prepared a counterattack carefully. In early August 1655 the 36-gun frigate *De Waag* arrived at New Amsterdam from the Netherlands. There it joined the force gathered by Stuyvesant and, at the end of August, the Dutch fleet (consisting of the frigate with six smaller vessels carrying about 700 men, including over 300 soldiers) arrived in the Delaware River and came into view of Fort Trinity, the former Dutch Fort Casimir. At the sight of such a force, the Swedish garrison of 47 men knew they were beaten before the fighting started. About a dozen mutinied and the fort surrendered on September 1. The next step was to attack Fort Christina, which had only about 30 men to defend it. The Dutch appeared before the fort on September 2 and began siege operations. By September 14



Fort Trinity, *c.*1654. The former Dutch Fort Casimir was captured by the Swedes in 1654 and renamed Fort Trinity. The Swedish flag (blue with a yellow cross) is hoisted on its flagpole. This woodcut gives a view of the fort's front facing the Delaware River. This bastioned fort also had a forward shore battery and a picket line in front. (Print after Johan Companius' 1702 *Kort Beskrifning em Provincien Nya Sverige*)

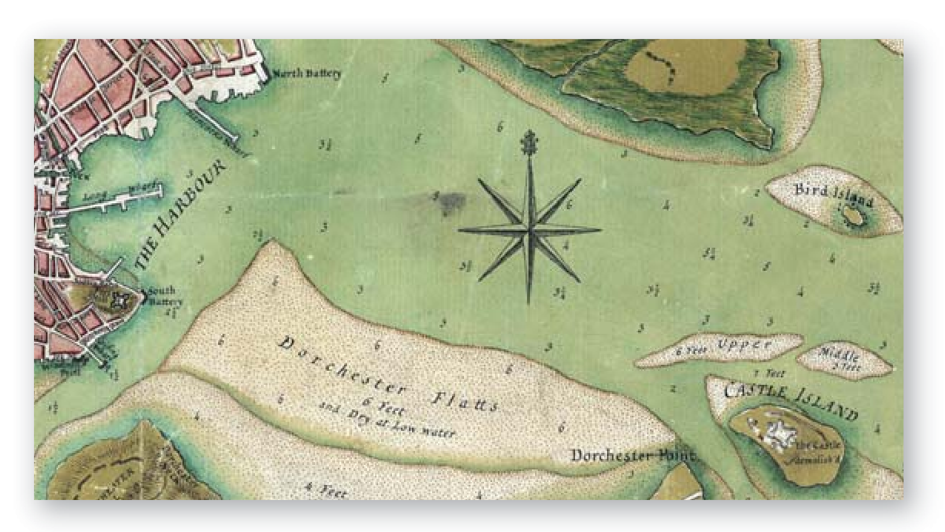
all the Dutch cannon were ready to bombard the fort and would do so if it did not surrender within 24 hours. The following day, Governor Risingh having been granted the honors of war, the garrison capitulated. The Dutch flag thus rose over the formerly Swedish forts.

In 1656 Sweden demanded the return of the colony or the payment of compensation by the Dutch, but wars in Poland and with Denmark soon diverted the Swedes' attention and New Sweden became part of the New Netherlands. The Swedish colonists swore allegiance to the Netherlands and continued to use their own legal system, practice their own faith, organize their own militia, and trade with the Indians. This went on after England took over the area and the Swedish community on the Delaware remained distinct well into the 18th century. By then the original Swedish forts had vanished and the saga of New Sweden was largely forgotten.

MASSACHUSETTS, NEW HAMPSHIRE, RHODE ISLAND, AND CONNECTICUT

Massachusetts

Following the Pilgrims' founding at Plymouth in 1620, several other small English groups established small communities such as Gloucester (1623), a palisaded trading post at Chelsea (1624), and Salem (1626), which had a fort mounted with eight guns. From 1629–30 hundreds of Puritan settlers arrived in the "Bay" area of Massachusetts, founding Boston in September 1630. Like the Pilgrims in Plymouth, the Puritans were religious refugees from England who denounced the rites and regalia practiced by the Church of England. Ten years later Boston already had 1,200 inhabitants and Massachusetts some 15,000. Indians were the perceived threat by the English settlers. Most early settlements probably had stockades and a militarized organization with well-armed and frequently trained militiamen. The early settlers built garrison houses, which were fortified buildings consisting of squared timber hewed from



Map of Boston harbor, *c.*1776. This detail shows the main coastal-defense features built to protect the town since the 1630s. At left is the city's harbor with the North Battery and the South Battery at the top and bottom respectively. Fort Hill is situated just behind the South Battery. At lower right is Castle Island with the bastioned outline of Castle William, the blockhouse, and, facing the channel, a long double line indicating the shore batteries. (Library of Congress, Washington)



Massachusetts Bay Militia, 1680s. The dress, arms, and color of Connecticut, New Hampshire, and Rhode Island troops appears to have been essentially similar. The men wore their own clothing, and Cambridge probate records reveal that men's suits were usually grey, dull red, reddish-brown, or just "dark" while the coats could be olive, "sad green," "sad purple," brown, or clay-colored. Breeches and stockings were mostly grey or blue. Officers had sashes and better clothing. (Reconstruction by David Rickman. Directorate of History and Heritage, Department of National Defence, Ottawa)

logs made to fit closely together and usually dove-tailed at the corners. Relations with the Boston-area Indians were peaceful. However, raids by the warlike Pequots on Puritan settlements during the mid-1630s caused the mobilization of the militia and the utter destruction of these hostile Indians in 1637; some Puritans believed they had been sent by the devil to test their resolve to build a "New Canaan" in America. There were no Indian wars for the next 40 years, so settlements were subsequently largely without fortifications. A major Indian uprising occurred in 1675 when, under chief King Philip, they suddenly attacked many settlements, killing about 500 colonists in Massachusetts, Connecticut, and Rhode Island. But these colonies were now home to about 50,000 souls, who mobilized and crushed the Indians in 1676.

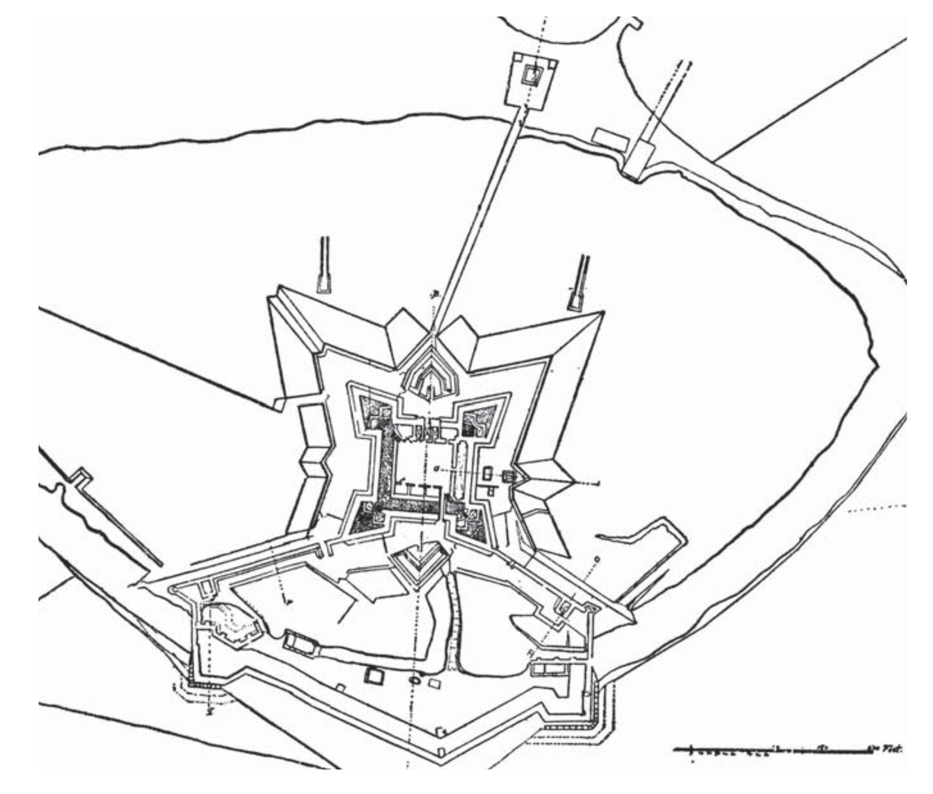
To the early Massachusetts settlers, another dangerous threat would come from seaborne enemies. In 1632–33 Boston's "Hill Fort" was built of earth and wood on a height near the shore with parts covered with turf. It was armed with some sakers and demi-culverins and served also as the colony's arms depot. It seems that a windmill was added in 1642. It was later built with bricks and, in 1676, had a dozen guns, but was considered "of little



Castle Island in Boston harbor, 1770. This view is taken looking east as one leaves the city's harbor. At the center (a) is the island with Castle William built upon it; a large blockhouse is seen at the point, the bastioned fort farther back, and the batteries at the water's edge. (Library of Congress, Washington)

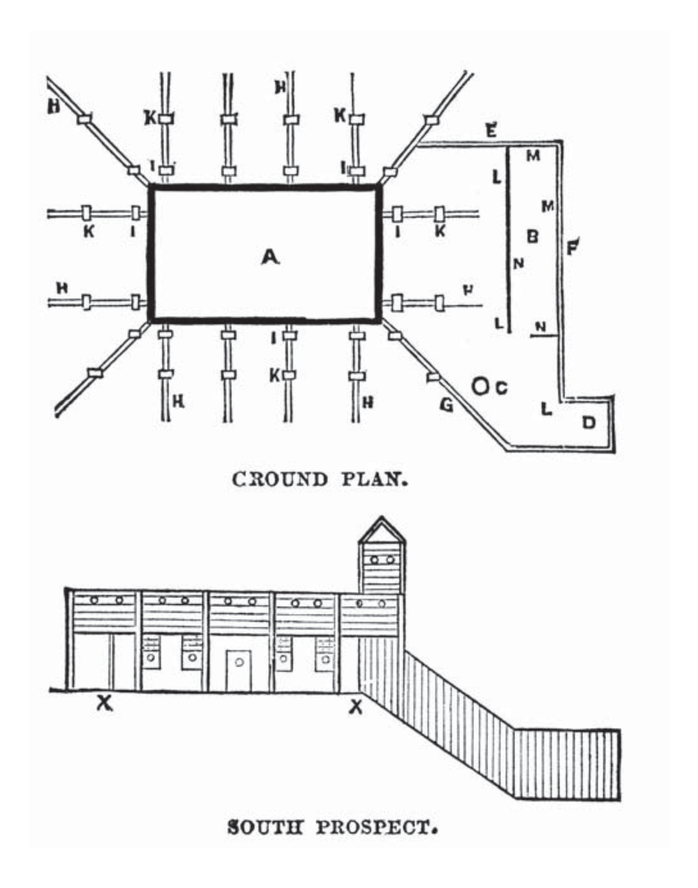
use" (Calendar of State Papers, or CSP) and rebuilt with four bastions in 1687. Two years later it served as a refuge for Governor Andros when Bostonians rose in support of King William's "Glorious Revolution." In time, its military significance lessened; from 1713 a children's school was installed there and the neglected fort was burned in 1760. The South Battery built on the waterfront below Fort Hill covered that part of the harbor. The North Battery built on the north side covered the Charles River. The town did not have walls and expanded rapidly, as indeed did the whole colony.

Boston's harbor was a maze of islands with low-lying sand bars that were often invisible at high tide. Ships would enter by a channel that passed



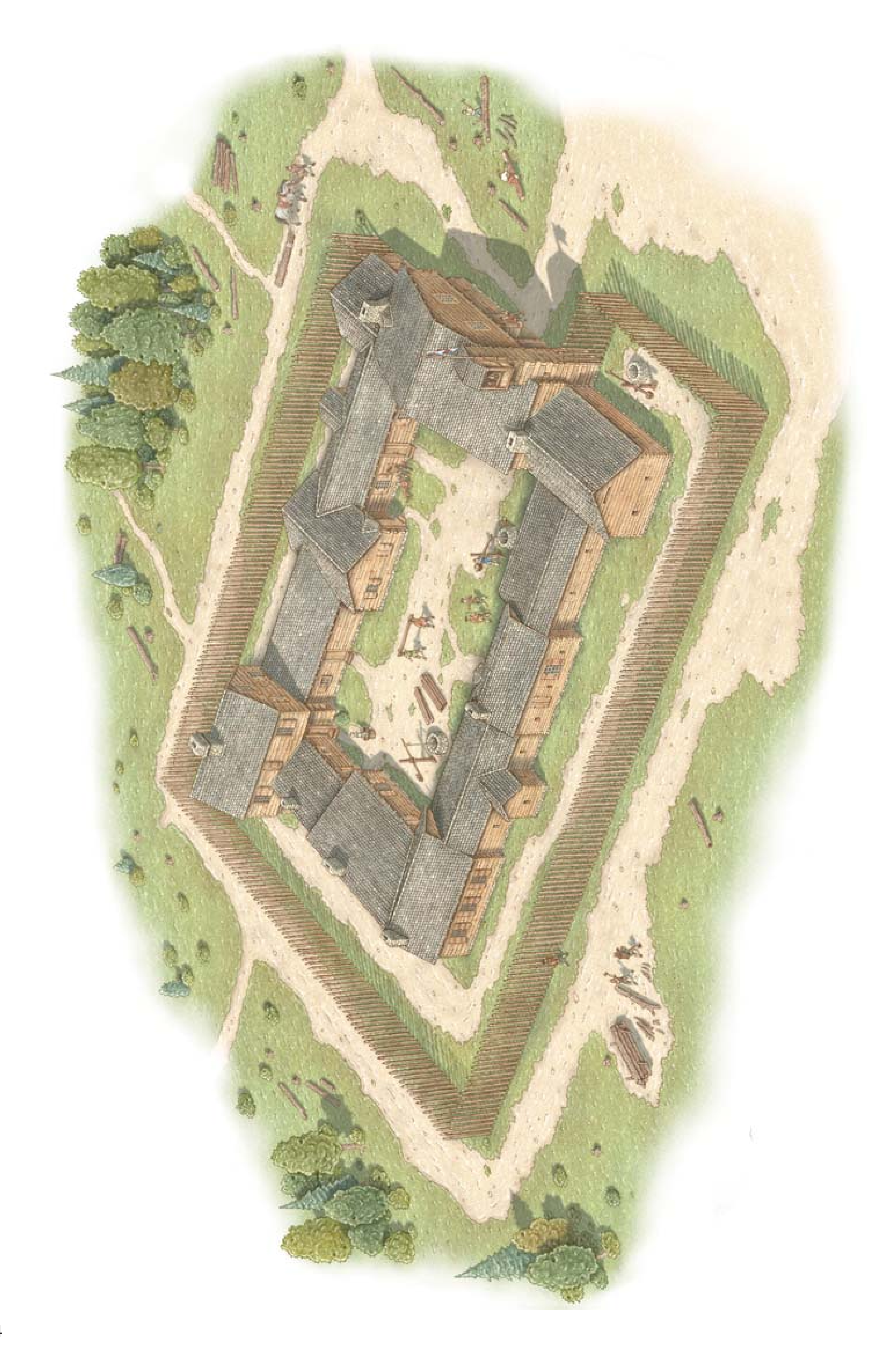
Plan of Castle William on Castle Island at the entrance to Boston harbor, *c.*1720. Originating in 1634 and built at Massachusetts' expense, the initial earth-and-timber fort was totally rebuilt between 1701 and 1703 into a large brick fort with about 100 guns in the fort and on the extensive shore battery in front of it. The expansion of the shore battery from 1736 added an additional 20 cannon of 42-pdr caliber, making it the most powerful coastal fort in the British North American colonies. This plan is oriented with the southeast at its top.

close to islands at its entrance. The harbor was exposed until 1634 when an earthwork with two platforms and three cannon was constructed on Castle Island, the best site for such works. In 1644 this battery was rebuilt with timber and stone thanks to Boston and five nearby towns pooling their resources. After a small fort was added in 1653 the fortification then had six guns, but it was made mostly of timber and was accidentally destroyed by fire in March 1673. It was subsequently rebuilt and made larger with four bastions. In 1676 it had "38 guns and a battery of six, commanding the [harbor's] entrance" (CSP). By 1701 it was obvious that Boston needed better protection and Colonel Wolfgang William Romer of the Royal Engineers designed a large fort on a square plan, made of brick and stone with ravelins, outside earthworks, glacis, and four bastions. Between the fort and the water's edge was a long battery protected by walls and earthworks (see illustration on p. 22). The fort, which then had 72 guns, was completed in 1703 and christened "Castle William" in honor of King William III. Its shore battery was extended from 1736. A few years later outlying redoubts, including the large Shirley Redoubt on the northeastern tip of the island, were added and barracks built, which made Castle Island somewhat like a citadel and certainly the strongest fortification in New England. It was never attacked, but was destroyed in 1776 by the British army when it evacuated Boston. In 1799 the US Corps of Engineers built the five-bastioned Fort Independence, which was rebuilt in 1851 into the present large fort enjoyed by visitors. Of the other coastal towns, only Marblehead's Fort Sewall was mentioned in a 1676 report. It was a battery built at the entrance to the harbor in 1644 and enlarged in 1742. Gloucester also had a coastal fort from 1635, as did Salem whose Fort Ann contained 20 guns in 1703.



Fort Anson, 1754–*c.*1759. Built at Pontoosuck in western Massachusetts, it was one of many garrison houses and small forts built in that area. Also known as the Fort at Pontoosuck and Captain Williams' Garrison, it had an unusual design with an 8ft-wide (2.4m) platform that ran around the perimeter of the structure, with a small blockhouse in one corner. The ground plan shows the basic structure (A), which was a sturdy blockhouse with projecting beams and columns to support the platform. The side view of the south prospect shows a palisade extending down a slope.

During the 17th century settlers founded communities westward, eventually reaching the upper Connecticut River and thus coming closer to the wilderness domain of the French and Indians. Following the August 1689 raid on the village of Lachine near Montréal by English-allied Mohawk Indians, who slaughtered many inhabitants and tortured prisoners to death, Governor General Frontenac approved a series of daring winter expeditions into New England. In early 1690 Schenectady (New York), Casco, and Salmon Falls (both in Massachusetts, now Maine) were razed by raiding parties from Canada. It was the beginning of frontier warfare that would plague England's American colonies until the fall of New France in 1760. Even Haverhill, north of Boston, was raided in 1697 and destroyed in 1708 in spite of being surrounded "by four forts" according to French officers. Northwestern Massachusetts was especially vulnerable to French and Indian attacks.

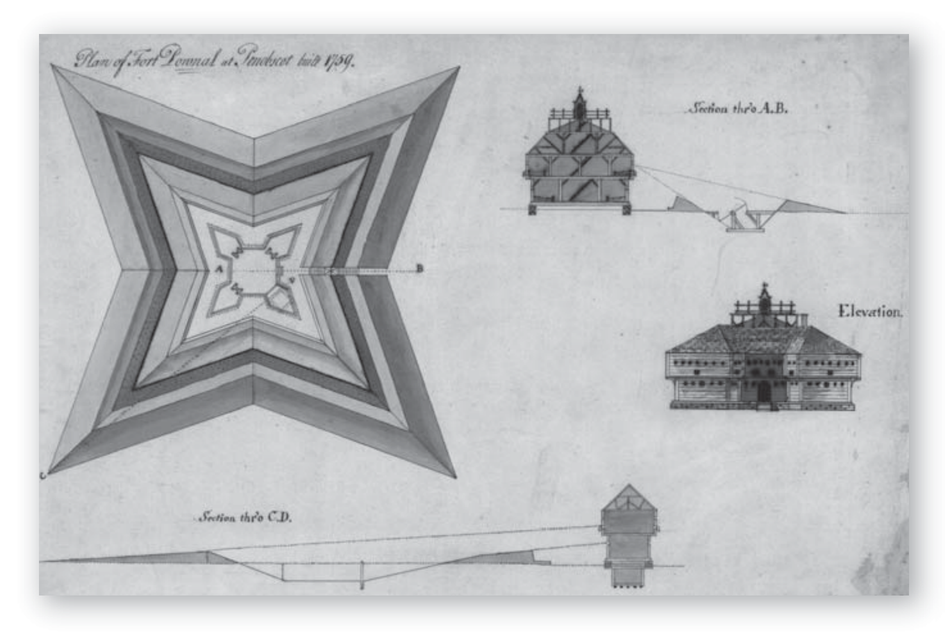


Garrison houses, first built in this area at the time of King Philip's War, were erected or rebuilt in nearly every community. They were of various sizes and designs, some being more like small forts. The deterrent effect of garrison houses might discourage small parties of raiding Indians, but would not stop a large expedition. Deerfield may have had up to a dozen garrison houses in its area, but these did not prevent its being taken in February 1704 by a large enemy raiding party. Massachusetts also sought to block hostile incursions farther north on the Connecticut River by building Fort Dummer (Bratleboro, Vermont) in 1724, a wooden stockade of 180ft^2 (55m^2) armed with a dozen cannon. Some of its buildings' thick timber walls also formed part of the stockade, a common practice in American frontier forts. In 1740 Fort No. 4 (Charlestown, New Hampshire) was also built along the river. It consisted of timber-interconnected houses used as dwellings as well as for defense. In April 1747 a large force of French and Indians besieged Fort No. 4, but withdrew after three days. From 1744 the western Massachusetts approaches were also guarded by the stockade forts Shirley (Heath), Pelham (Rowe), and Massachusetts (Adams). The latter fort was destroyed in August 1746 by a large French-and-Indian raiding party. As the frontier moved farther west due to settlement, the hostile threats lessened, but they were never entirely subdued until the end of the Seven Years War. Most of these defensive structures were then abandoned or taken down.

Some English and Massachusetts settlers went north along the coast to the district of Maine (part of Massachusetts until 1820, when it became a state). This was closer to the French in Canada, who had established close links with the Abenakis Indians. As a consequence the area saw much fighting during th 17th and early 18th centuries and remained sparsely settled. The Maine settlements often had garrison houses for protection against Indian raids. The province of Massachusetts built Fort Charles at Pemaquid during 1677, near the mouth of the Kennebec River; it was described as a wooden redoubt "with two guns aloft and an outworke with two bastions in each of which [are] two great guns, and one at ye gate." In September 1689 Indians attacked and destroyed the fort and the small town around it. It was a major blow to the New Englanders, causing the withdrawal of most settlers. To secure the area, Fort William Henry was built there in 1692, a somewhat medieval-looking large stone fort with high walls and a massive tower (see Plate C). Some thought it to be impregnable, but the fort had only 11 soldiers when, in early August 1696, a squadron led by Pierre Le Moyne d'Iberville consisting of four French warships, including a bomb ketch, appeared, accompanied by several hundred Indians. The tiny garrison rejected the summons to surrender,

B FORT AT NO. 4 (NEW HAMPSHIRE), 1743–47

This fort was built by the settlers at land grant (or "plantation") No. 4 in 1743. The outer walls of the fort's lodgings served as its curtain walls, a common feature in wilderness forts built by settlers or by provincial governments. Most of the information about its layout is known thanks to a plan made on July 4, 1746 by John Maynard, a soldier in the garrison. The fort was built on a slightly rectangular plan that featured, besides the fortified lodgings, a "Great Chamber" two stories high, to which was adjoined a tall wooden tower that served as a lookout on the Connecticut River. The "Great Chamber" building had a large hall that served as a function room for church service, meetings, or as a barracks. In addition, a cannon was placed in the nearby Parker House, used to sound the alarm of danger in case of attack as well as for defending the fort. Outside the fort was a stockade made with 12ft-high (3.6m) logs set about 5in. (127mm) apart, enough to shoot out from but not wide enough for someone to pass through. As in all frontier settlements of the time, should danger appear and the alarm gun be fired, the settlers would immediately run to take refuge inside the fort, leaving their fields, agricultural tools, and large animals. In April 1747 a large French-and-Indian force attacked Fort No. 4, but withdrew after a three-day siege.

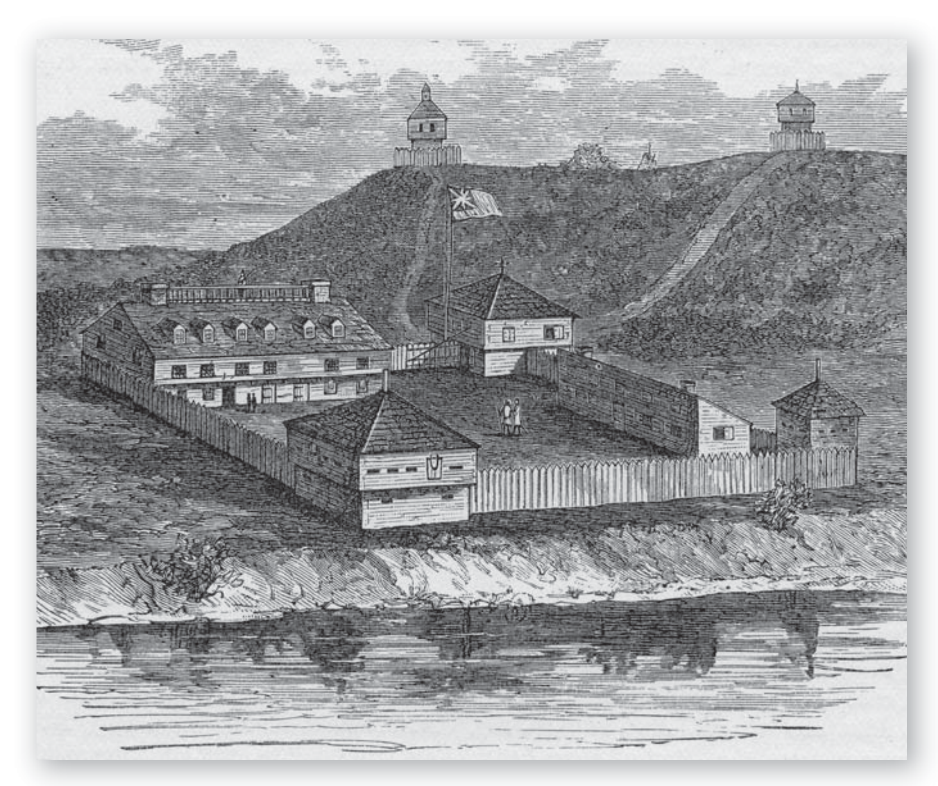


Fort Pownall plan, 1759. Named after Thomas Pownall, governor of Massachusetts, this fort blocked any French-and-Indian war party coming down the Penobscot River and was never attacked. Garrisoned until 1763, it was destroyed by American patriots in about 1775. (Library of Congress, Washington)

so d'Iberville had some mortar shells fired and the few Massachusetts soldiers now capitulated on the condition of being safely evacuated, which was done. The French then destroyed the fort and sailed away. It remained a pile of rubble until it was repaired in 1729, renamed Fort Frederick, and garrisoned. It was abandoned in 1759. There were other forts inland and farther south. Those at Salmon Falls and Saco were taken by the French and Indians in 1690, but later rebuilt in stone. In 1703 many settlements in Maine were raided by the French and Indians, which provoked counterattacks on Pentagoet and Grand Pré. In 1722 warfare broke out with the Indians in Maine and New Hampshire and many settlements were attacked, but peace was concluded in 1725. Thereafter the Maine area became more peaceful, although there were some Indian raids in the mid-1750s. To cope with these surprise raids, stockades or timber forts and batteries were built, such as Fort Mary (1708) at Saco, Fort Larrabee (1735) at Kennebunk, Fort Pepperell (1680s) and the later six-gun battery of Fort William (1720) at Portsmouth, Fort Halifax (1754) at Winslow, Fort Western (1754) at Augusta, and Fort Pownall (1759) at the mouth of the Penobscot River.

New Hampshire

The first settlements were established in 1623 at the Piscataqua River area and consisted mostly of English fishermen, soon joined by Puritans from Massachusetts. According to Samuel Maverick's 1660 *Description of New England*, the first settlers built a "strong and large house, [and] enclosed it with a large and high palizado and mounted guns" at the mouth of the river (near Rye). In 1631 an earthwork fort with four guns was built on the island of New Castle at the mouth of the Piscataqua, which was the most important site to defend the colony from enemy ships (now Fort Constitution). From 1641 the settlements on the Piscataqua River passed under the jurisdiction of Massachusetts until 1679, when a royal order created the colony of New Hampshire. In terms of defense, this relatively small colony continued to depend on the policies and resources of Massachusetts. In 1666 a timber blockhouse was built on the island, but a stronger work was needed. During the 1690s ordnance arrived from

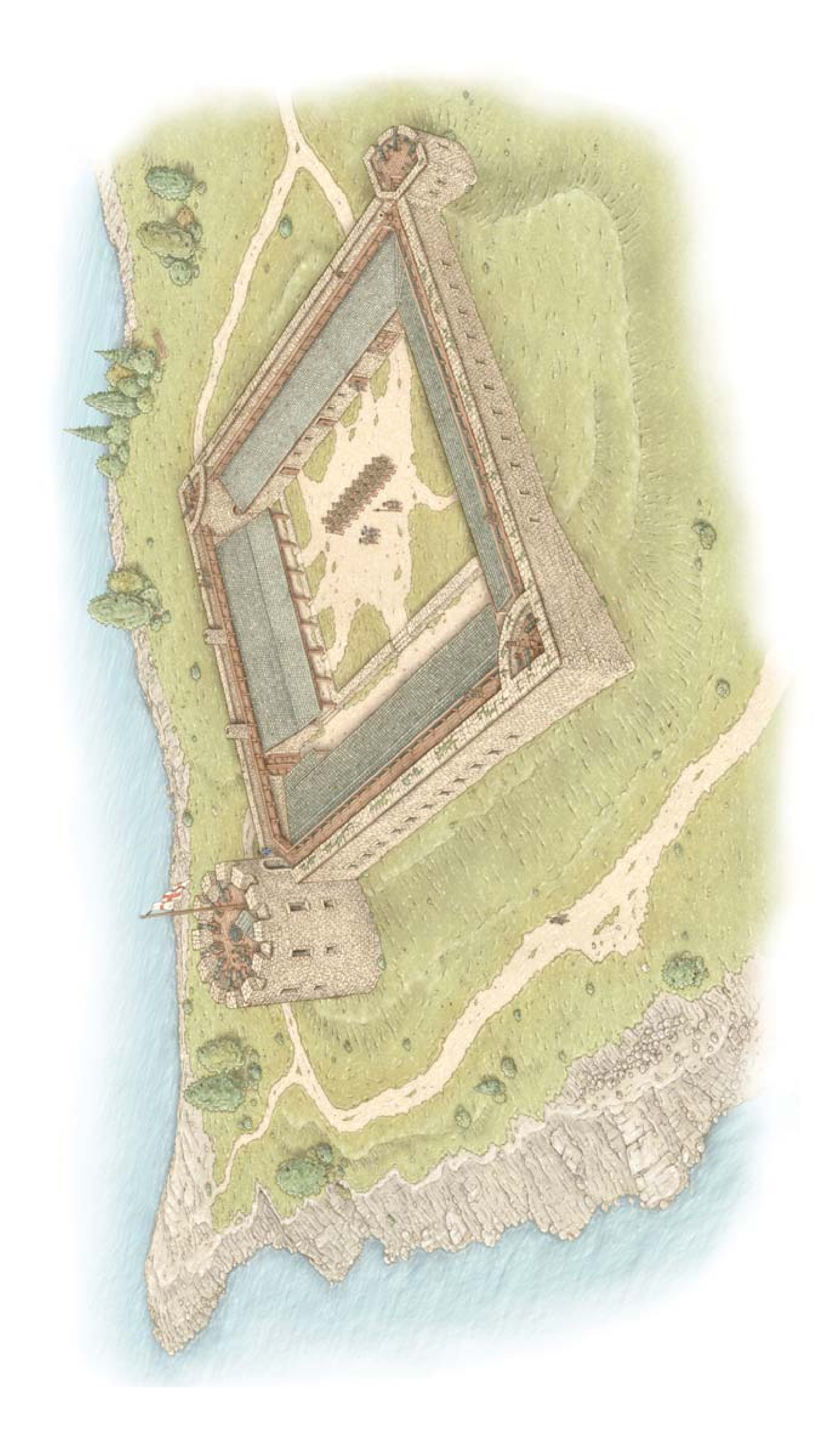


Woodcut of Fort Halifax. Built in 1754–55, this fort was at the confluence of the Kennebec and Sebasticook rivers in Maine and was meant to protect settlements in Maine from raids. The original plan by General Winslow called for a large four-pointed-star-shaped palisade with five blockhouses within. Once on the spot, however, Captain William Lightgow found the original plan impractical and, in the summer of 1755, changed it to a square stockade with large timber blockhouses at the southwest and northeast corners, the quarters and storehouse forming part of the walls. A timber redoubt secured the nearby hill.

England and was installed in Fort William and Mary, which was being constructed on the island. It was a large battery containing some 19 guns to protect the access to Portsmouth, the colony's capital. In 1705 it was rebuilt and armed with 30 guns. This large fortification commanded access to the harbor of Portsmouth from a seaborne attack. It consisted of turf-covered ramparts 3ft (0.9m) high, upon which wooden platforms for batteries were installed, protected by 7ft-high (2.1m) curtain walls reveted with stone. It was New Hampshire's largest fort, was never attacked, and was dismantled in 1774–75. From 1689 a battery was built on Kittery Point, eventually called Fort Pepperell, and, from the 1720s, Fort William (now Fort McClary). Its six guns provided crossfire with Fort William and Mary. Although there were many fortified garrison houses and stockades in New Hampshire villages (up to 50 in the Dover area), this fort was the most important in the colony. Battery Cumberland (now Fort Stark) was also built in 1746 at the southern end of New Castle Island to further secure the entrance to Portsmouth harbor. During the 18th century Massachusetts built several forts along the Connecticut River including Fort No. 4 in an area that eventually became the western border of New Hampshire.

Rhode Island

Once settled in Providence from 1636, the settlers built a number of garrison houses and palisades to protect their communities, notably from Indians during King Philip's War. Thereafter, protection was sought against seaborne raiders that might attack Newport and Providence by entering Narragansett Bay. Newport was at the strategic entrance to the bay and Fort Anne was built there in 1702 and armed with a dozen guns. It was later called Fort George and its armament increased to about 50 cannon; it was the largest fort in the colony.





Entrance to Narragansett Bay. This is an important waterway because it leads to Newport (at left on the peninsula seen in the center) and to Providence at the north end of the bay, the two most important cities in Rhode Island. From 1702 a fort was built on Goat Island, eventually armed with some 50 guns. From the 1740s a watchtower stood on Brampton Point, most likely at the site of Fort Adams (distinguishable at center). From the 1770s, sizeable forts and batteries were also erected on Rose Island (bottom) and at The Dumplings (right). (Library of Congress, Washington)

Connecticut

The Dutch built trading forts from 1631 in Connecticut, but from 1633 English Pilgrim settlers from Massachusetts had arrived and by 1636 some 250 colonists had settled on the western shore the Connecticut River. In 1635 they built Fort Matianuck (or Windsor Blockhouse), Fort Saybrook, and Fort Hartford to counter the Dutch Fort Good Hope there. The Hartford settlement grew and tolerance prevailed since the Dutch continued trading there until they closed their post in 1654. There was also New Haven Colony set up by Puritan settlers as an independent entity in 1638, but, apart from a fort recorded in 1657, New Haven had no substantial fortifications. The stockade fort at Saybrook (now Old Saybrook) was rebuilt close to the entrance to the Connecticut River in 1648; it successfully resisted a Dutch naval attack in 1675 but was afterwards abandoned. A small fort was built at New London in 1691, which was essentially a six-gun coastal battery with the powder magazine and guardhouse on higher ground. In October 1739 "ten good cannons" were added, although it contained only nine guns in 1774. There were many small villages, forts, and garrison houses in Connecticut, but no substantial fortifications during the colonial era.

C FORT WILLIAM HENRY, PEMAQUID, 1692–96

Situated on New England's contested northern seacoast, Pemaquid's first fort was destroyed by Indians allied with the French in 1689. The colony of Massachusetts Bay resolved to build another, stronger, fort, since the Maine area served as a defense buffer for communities farther south. In 1692 the new fort was built, costing some £20,000, which was two-thirds of Massachusetts' budget that year. The new structure was built of stone, and instead of the usual Vauban-style low structure with bastions, ditches, and glacis, Fort William Henry at Pemaquid looked more like a small castle. Cotton Mather's account published in 1702 mentioned that the south wall was 22ft (6.7m) high and "more than six foot thick at the [gun] ports, which were eight foot from the ground." The east wall was 12ft (3.6m) high, the north wall 10ft high, and the west 18ft (5.4m) high. The walls were pierced for 28 gun ports and 14–18 cannon armed the fort, six of which were 18-pdrs. It was built on an almost-square plan, with internal dimensions of 142ft (northwest to southeast) and 160ft (northeast to southwest). The southwest and northeast corners were constructed as reinforced internal bastions or turrets and the northwest corner had a sort of half turret. The most striking feature of the fort was its large, round tower that rose 29ft (8.4m) high.

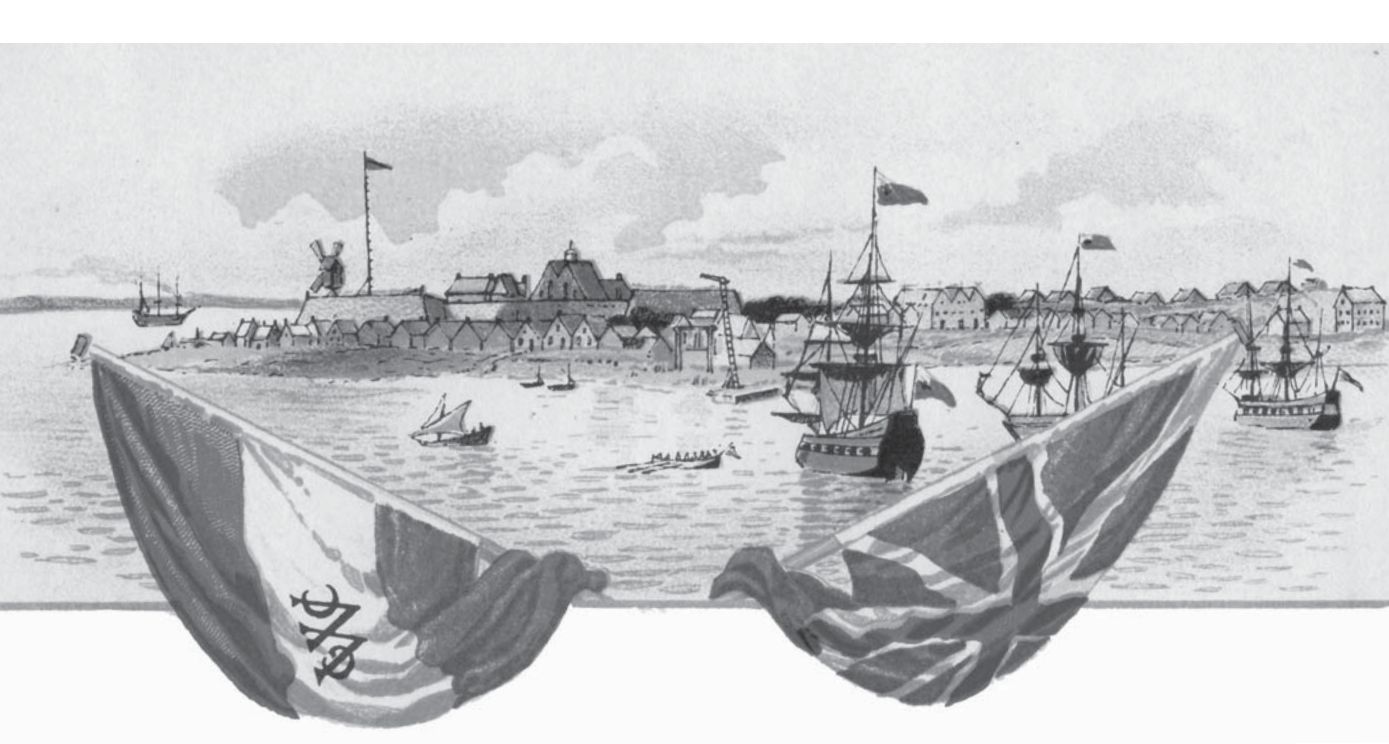
Our reconstruction is largely based on Robert L. Bradley and Helen B. Camp's *The Forts of Pemaquid, Maine: An Archaeological and Historical Study* (Augusta, 1994), but there are some unknown features. The exact presence, number and location of cannon ports in the walls is speculative. The interior held several buildings whose function is uncertain; fireplaces are in the structure on the eastern side, indicating a lodging. The others would have been storerooms and gun emplacements. There may have been a wooden inside walkway along the upper walls. The answers to many questions have vanished for ever, but enough remains to indicate that this ill-fated fort was, after Castle William in Boston, the most imposing fortification built by English colonists on the Eastern Seaboard during the 17th century. It was nevertheless taken and destroyed in August 1696 by a French naval squadron led by Canadian-born Captain Pierre Le Moyne d'Iberville.

NEW YORK

The English initially merely changed flags and garrisons in the former Dutch forts of the New Netherlands. In 1670 New York City's Fort James (formerly Fort Amsterdam) had "four bastions, forty pieces of cannon mounted; the walls of stone lined with a thick rampart of earth" according to John Ogilby. This fort remained basically the same as it was during the Dutch period well into the 18th century, although its name was changed again to Fort George when George I became king in 1714. After 1674 the English bolstered the weak defenses of New York's harbor and a battery was built in front of the fort, eventually extending south to Whitehall Street; in 1702 this battery had 15 guns with 37 other cannon mostly installed in various places along the waterfront. Two other small batteries were at the harbor's "narrows" at about that time. A 1706 report mentioned that the "old fort" in New York City had 21 guns "of which only 10 are serviceable" and that the battery in front needed six 24-pdrs. Three new blockhouses had four small guns each (WO 55/343 and 344). The most notable improvement came in 1735 when the Whitehall Battery near the old fort was rebuilt featuring three waterfront bastions and inaugurated on July 21 as the George Augustus Royal Battery, also known as Capsey's Battery. Regrettably, the festive event turned into a tragedy when one of the guns blew up, killing three people including the governor's daughter. New York City's land defenses were not deemed important and the palisade built by the Dutch on Wall Street had vanished by the 1720s as the city grew. By 1745, however, fear of French and Indian raids had reached New York City. A new wall was built across Manhattan from James and Cherry streets, which ran diagonally and irregularly west up to north of Warren Street. The wall had a ditch in front and was of cedar logs about 14ft (4.2m) long, apparently laid horizontally with loopholes for muskets. Along this wall were three blockhouses, 30ft^2 (9.1m^2) in area and 10ft (3m) high, with six embrasures for cannon and four gates. It seems to have vanished following the Seven Years War.

The area north of Albany was the most threatened in the colony. It was near the domains of the powerful Iroquois, who were on mostly friendly terms

New Amsterdam in the 1660s. Print after H. Ogden, after a contemporary view of the city by Augustine Herrman found engraved on at least five different maps of the period. Fort Amsterdam with its large bastions is at the center and left. The flag of the Dutch West India Company is at left, and that used by Great Britain between 1606 and 1801 is at right. (Private collection)

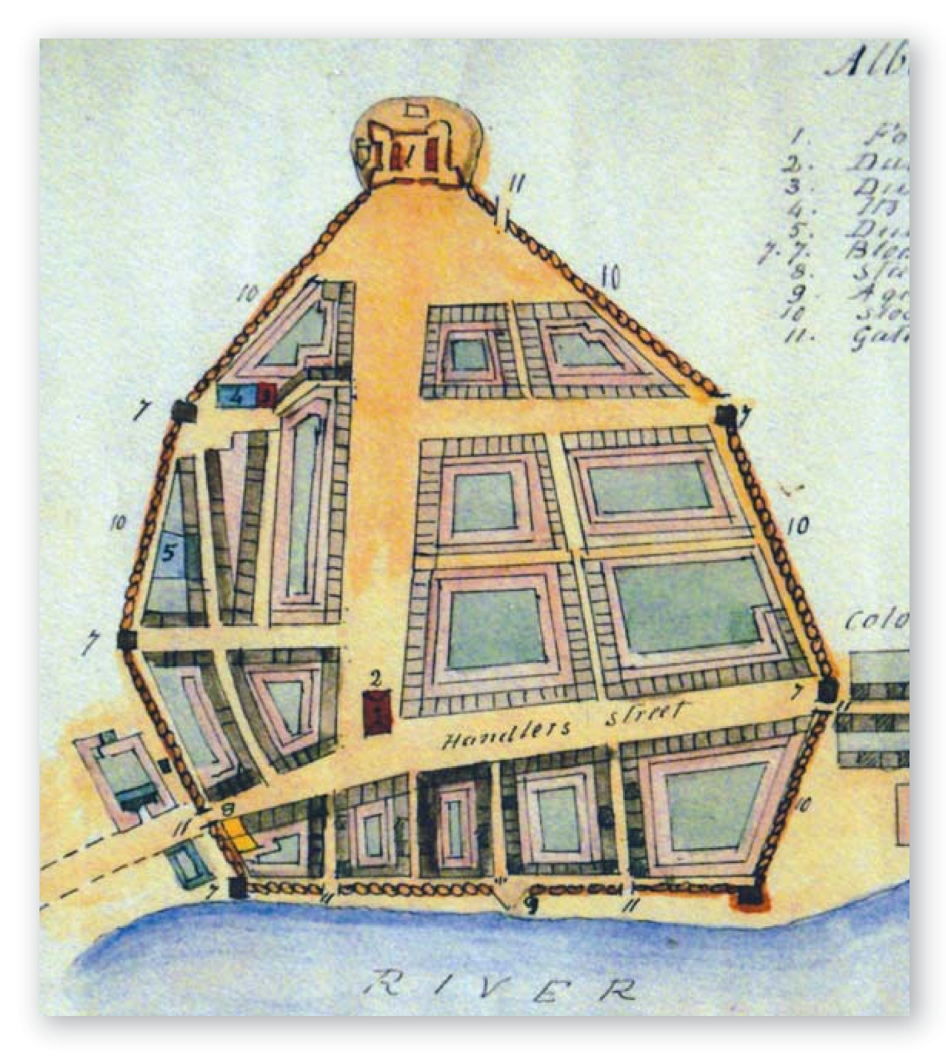




New York City's Fort George and the Battery seen from the southwest in 1736. Both of these works had up to 120 cannon on their ramparts. Inside the fort, originally built by the Dutch over a century before, are the imposing structures of the chapel and the governor's residence. Engraving by I. Carwitham. (Library of Congress, Washington)

with the English, but relations with Indian nations could change very fast. Also of increasing concern was the growing power of the French in Canada. Thus, in March 1676, Governor Sir Edmund Andros ordered that a new fort made of earth and timber be constructed on the height overlooking the town, with each of its four bastions mounting six guns. In June the garrison moved from the old Dutch fort near the river to the new English Fort Frederick on the hill. Albany's other major defensive work was its protective stockade, which now ran up to the new fort on the hill and had several gates corresponding to its streets. This wall was rebuilt during the summer of 1757 with, according to Royal Engineer John Montresor, the city government of Albany paying for and digging "the trench for the ditch to put in the stockades."

From the later part of the 17th century, just as the French and Indian menace grew, Albany was increasingly protected by Schenectady, about 20 miles (32km) to the northwest, and by a few small posts to the north in the Saratoga area on the west bank of the Hudson River. Founded in 1662, Schenectady itself was admirably placed for its protection and safety, being surrounded by water and marsh on three sides and open only to the southeast. The settlement was protected by a rectangular stockade pierced by two gates and with two blockhouses at opposite angles. The north angle also had a small double-stockade fort. On the very cold night of February 8, 1690 there were no sentries on duty and one of the village gates was ajar when the Canadians, French, and Indians attacked. The surprise was total and Schenectady was razed, although the survivors were spared. This was the first large-scale French-and-Indian raid on New England in reprisal for the horrific destruction of Lachine, near Montréal, by Mohawk warriors, who had been encouraged by the English in New York. From the 1690s the Canadian woodsmen with their Indian allies became the undisputed masters of raid warfare until the final phases of the Seven Years War in the later 1750s. In wartime between

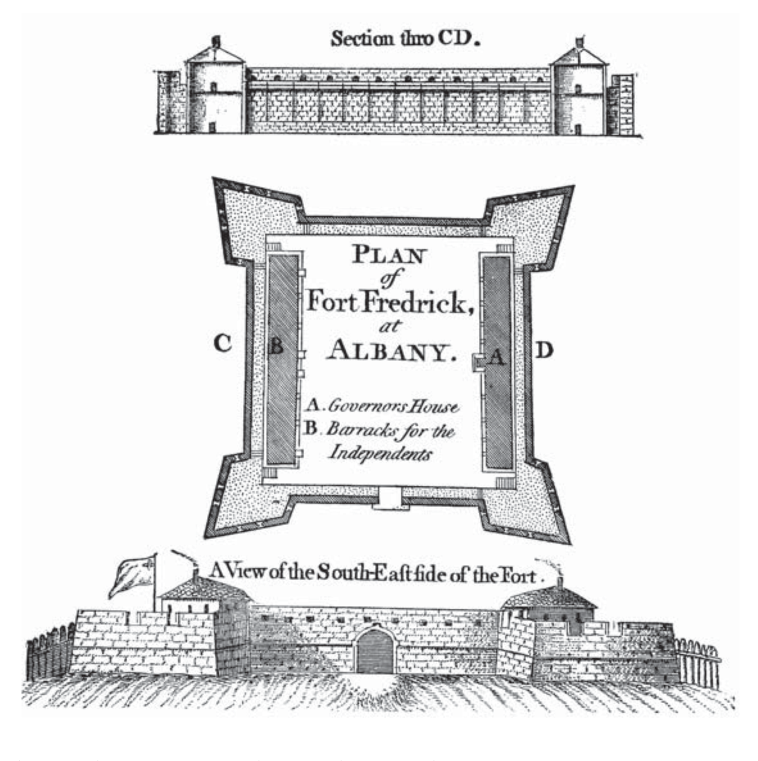


Plan of the town of Albany, 1695. During the colonial era Albany was always protected by a stockade wall (10), which was punctuated at intervals by blockhouses (7). The fort (1) was on the north side and a "great gun" (9) covered the river on the south side. (Albany Institute of History and Art)

Britain and France they erupted from the wilderness and destroyed countless frontier settlements and forts. In so doing they provoked the construction of a vast number of all sorts of fortifications, big and small, in the British colonies. Indeed, Schenectady's stockade was ordered rebuilt in May 1690. It was armed with eight cannon and four swivel guns that actually belonged to local merchants, and featured tower-like blockhouses at each corner. In 1705 the blockhouses were abandoned and a new fort was built at the eastern angle of the stockade. It was about 100ft^2 (30.4m^2) in area including its bastions. It was rebuilt in 1735, this time using timber laid on a stone foundation.

A blockhouse named Fort Vrooman (near Schuylerville) was built during 1689 in the Saratoga area north of Albany and later abandoned. Since it was in the path of French and Indian raiders, a more permanent Fort Saratoga was erected there in 1702, but its small garrison had "not a single" gun at that date (WO 55/344). Rebuilt in 1721, it was taken and destroyed in November 1744 by a large force of French and Indians, which went on to the outskirts of Albany. Reconstructed in 1746 as Fort Clinton, it was again attacked by a force of French and Indians in June 1747, abandoned, and destroyed during the fall of that year. Fort Hardy (at Schuylerville) was built in August 1755 as a supply depot and appears to have been garrisoned until the end of the Seven Years War.

The most northerly of the early New York forts was Fort Anne, east of Lake George at the junction of Halfway Creek and Wood Creek, situated on the most important land route from Albany to Fort Crown Point on Lake Champlain. In 1709 Fort Schuyler was built there, but dismantled when the troops withdrew before the end of the year. Two years later, General Nicholson's army assembling to invade Canada built Queen's Fort, which was renamed Fort Anne (or Ann) when it was completed. It was an earth-and-palisade work of 140ft^2 (42.6m^2) in area with 20ft^2 (6m^2) bastions and had two large buildings within. It was later abandoned, but was restored in 1757 with the addition of a stone magazine and arsenal.



Plan of Fort Frederick, Albany, *c.*1760. This fort was first built in 1676 on the hill that overlooks the city (now the site of the New York State Capitol building). It had essentially the same plan as shown except that the northeast bastion (upper right) was more rounded. Repairs were made in 1757 and this plan shows the fort as it was from that date. (From *A set of plans and forts in America*…, 1763)

During the 1750s the most important fort on this route was Fort Edward, built in 1755 on the shore of the Hudson River at the southern end of the "Great Carrying Place," an 11-mile (17.7km) portage road between that river and Fort Anne farther north. Another trail, stretching 14 miles (22.5km) to the northeast, led to the southern end of Lake George. The first fortification at that site was Fort Nicholson, which was erected in 1709 and abandoned at the end of the War of the Spanish Succession. In 1732–35, while the French were building Fort Saint-Frederic at the southern end of Lake Champlain (Crown Point, New York), the British built Fort Lydius together with a settlement, which was destroyed in 1745 by a French-and-Indian raid.

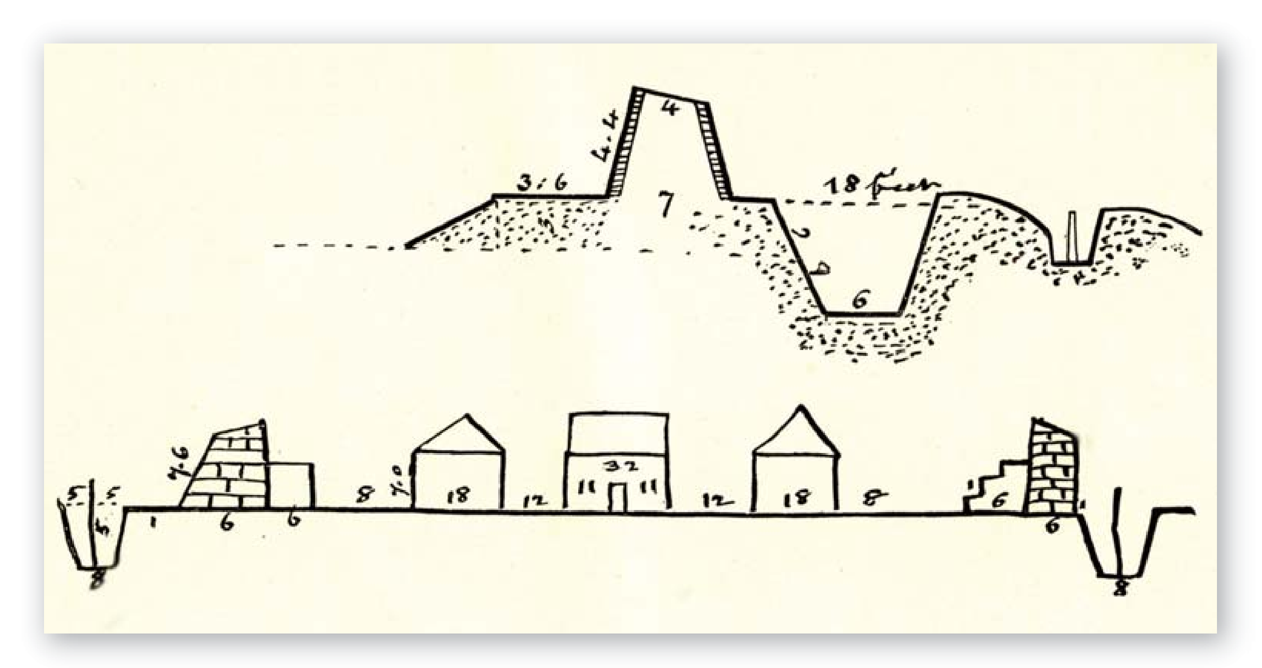
Plan of Schenectady, 1695. 1: corner blockhouses; 2: river running beside the fort; 3: Indian wigwams; 4: the flagstaff; 5: sentry box; 6: the spy-loft; 7: sties for hogs; 8: the blockhouse used as a church; 9: houses; 10: a great barn; 11: the treble stockade; 12: the fort's gates. (Plan after John Miller's *Description of the Province and City of New York*…, 1695)



Fort Edward, *c.*1758–60. This undated plan shows the fort during its peak period of use as a military base. First called Fort Lyman, it was built in 1755 of timber and earth. The walls were 16ft (4.8m) high and 22ft (6.7m) thick and the fort had six cannon on its ramparts. It had a deep ditch in front of the walls. (Print after W. H. Hill's 1929 *Old Fort Edward*)

Ten years later, hostilities broke out again and Fort Lyman, quickly renamed Fort Edward in September, was built at this important strategic location. For further warning and protection against raiders, the "Royal" blockhouse was built about two miles (3.2km) farther up on the Hudson River's eastern shore. Fort Edward was abandoned in 1766.

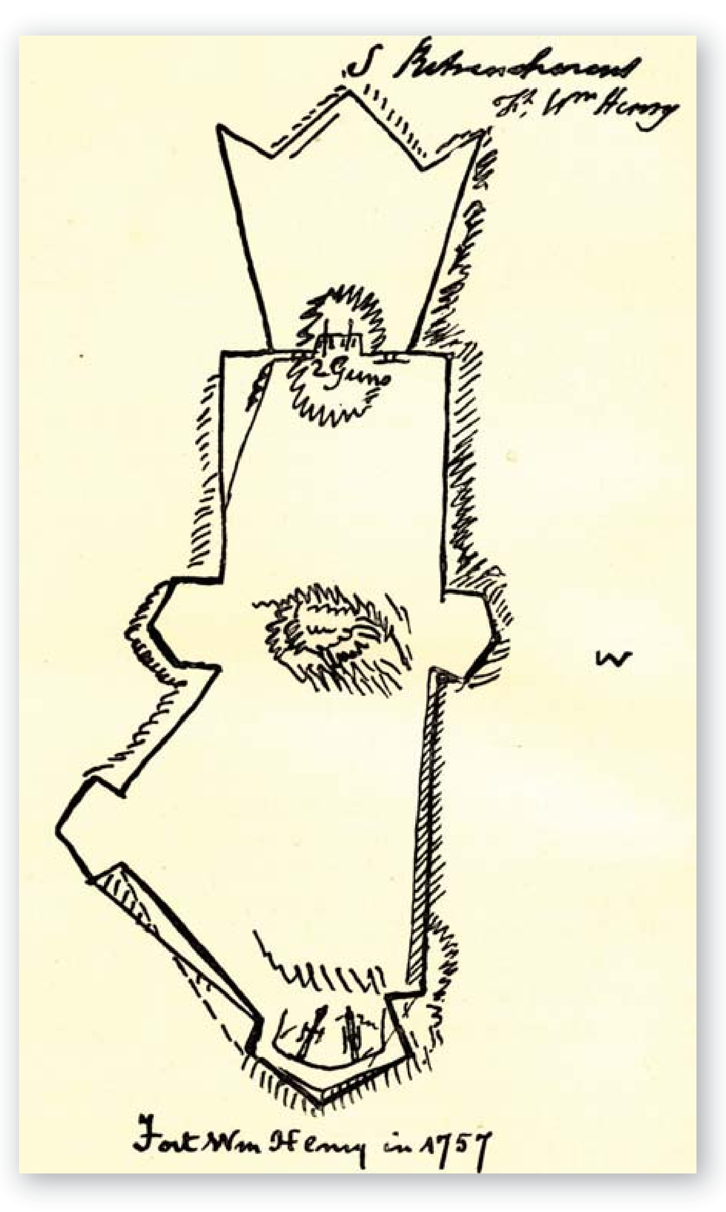
Although war between France and Britain would not be declared officially until 1756, armies were already fighting in North America during 1755. The British and Americans had been defeated in Virginia and Pennsylvania, but they had taken forts Beauséjour and Gaspareau on the Nova Scotia border. At Lake George a large camp surrounded by an earth-and-log wall on a rectangular plan had been built by Sir John Johnson's provincial army on a height. On September 8 some 2,000 New England militiamen entrenched in their fortified camp at Lake George under Sir William Johnson defeated General Dieskau's French



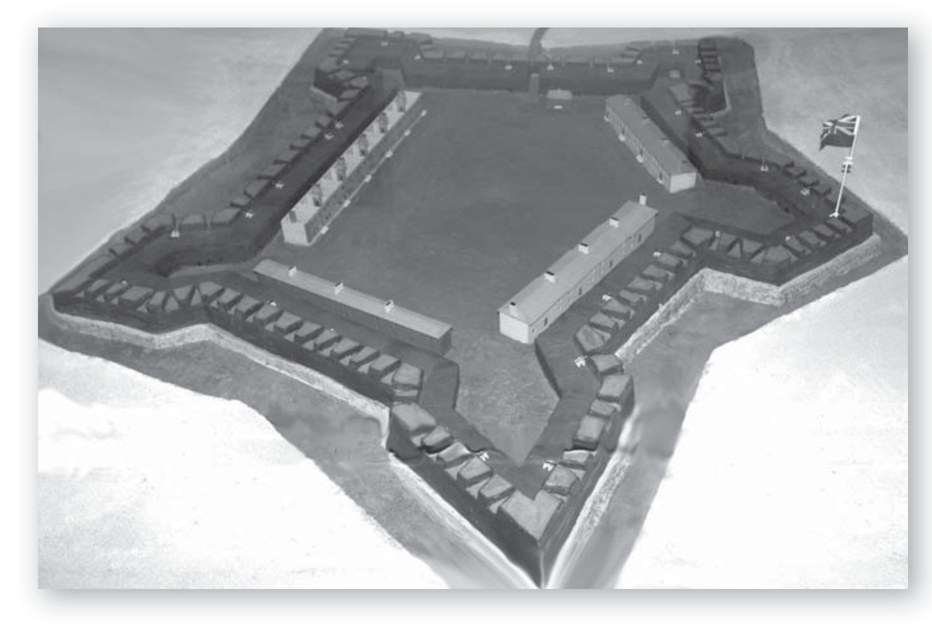
Profiles of the fortifications around Fort Edward and Fort Saratoga (New York), 1757. Both feature exterior ditches with a berm within, making any surprise attack very difficult. (Print after a plan by John Montresor)

regulars marching towards Fort Edward. Following this victory, Fort William Henry (called Fort George by the French) was built there to secure Lake George while the French were erecting Fort Carillon at Ticonderoga to block the Anglo-Americans. This was insufficient for the large number of British and American troops who mustered on the southern end of Lake George during the summer. The fortified camp built by Sir John Johnson's provincial army was about 350yds (320m) southeast of the new fort and it continued to be used. In July 1757 this camp was redesigned and strengthened by Engineer Montresor with the addition of a hornwork to the south covered by a battery of two guns, bastions to each side, and another two-gun battery in a bastion facing north. Since Fort William Henry was the first British post on the Richelieu River–Lake Champlain–Lake George watershed, hitherto controlled by the French from Canada, it became their primary target. There were many skirmishes in this area, but the first serious attack occurred in March 1757 when some 1,500 French and Indians failed to surprise the Anglo-American garrison of 475 men, who repulsed the raiders. However, on August 3, 1757 General Montcalm's army of nearly 8,000 men (including some 1,800 Indians) invested the fort with its nearby camp and began European-style siege operations. Lieutenant-Colonel George Monro's doomed 2,300-strong garrison surrendered on August 9, and some of them were later slaughtered by rampaging Indians in spite of the French's efforts to stop them. On August 15 the fort was demolished, after which Montcalm's army went back to Canada. Thereafter, the Anglo-Americans did not build another fortification at the southern end of Lake George until July 1759 when General Amherst's army assembled there before moving up against Fort Carillon and Fort Saint-Frédéric. Construction thereafter started on Fort George, on the site of the former Fort William Henry. In early August 1759 the French blew up and evacuated both Fort Carillon and Fort Saint-Frédéric, making the new British fort under construction at Lake George redundant. It was abandoned with only its southern bastion completed.

Following the French's departure from the southern end of Lake Champlain, General Amherst was eager to secure the area to prepare for his army's advance on Canada. Fort Carillon was renamed Fort Ticonderoga and work started on repairing it following its original plan of a square with large



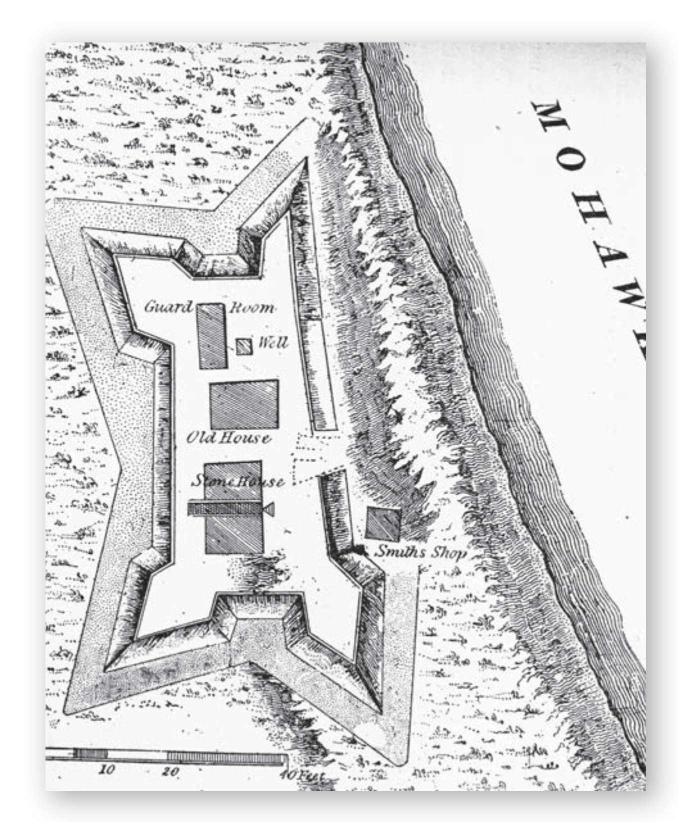
The camp at Fort William Henry, 1757. Just to the east of the fort was a large camp surrounded by field fortifications built since 1755. The thousands of troops that assembled at the southern end of Lake George during the summer could never all fit in the fort. Two years later, shortly before the siege of the fort by Montcalm's army, Royal Engineer John Montresor redesigned the outline of the camp to make it more defensible. (Print after a plan by John Montresor)



Fort Crown Point, 1759–73. Built as a pentagon with five bastions, this large fort had curtain walls of wood and timber laid on a substantial stone foundation. Inside was a wooden guardhouse near the gate, masonry officers' quarters and men's barracks (at right), and a wooden armory/storehouse (bottom). Another men's barracks (left) was not finished when the Seven Years War ended in 1763. (Crown Point State Historic Site, Crown Point, New York)

bastions revetted with stone. At Fort Crown Point, on the southern end of Lake Champlain, Fort Saint-Frédéric had been thoroughly destroyed and, in any event, Amherst needed a much larger fort. Some 3,000 men immediately started construction on Fort Crown Point, a large pentagon with five bastions, three outside redoubts, three blockhouses, and various fieldworks. A 77-mile (124km) road was also built through the wilderness between Fort Crown Point and Fort No. 4. In 1760 Fort Crown Point was the gathering point for one of the three Anglo-American armies that moved towards Montréal. After Canada's capitulation in September work slowed down at Fort Crown Point, and in 1763 one of the barrack buildings was left unfinished, but a small garrison remained posted there. On April 21, 1773 a chimney fire spread from the men's barracks to the fort's timber walls and from there to the powder magazine; the garrison was evacuated and the fort was partly destroyed by the massive explosion that followed. By then the site had little strategic value and was abandoned.

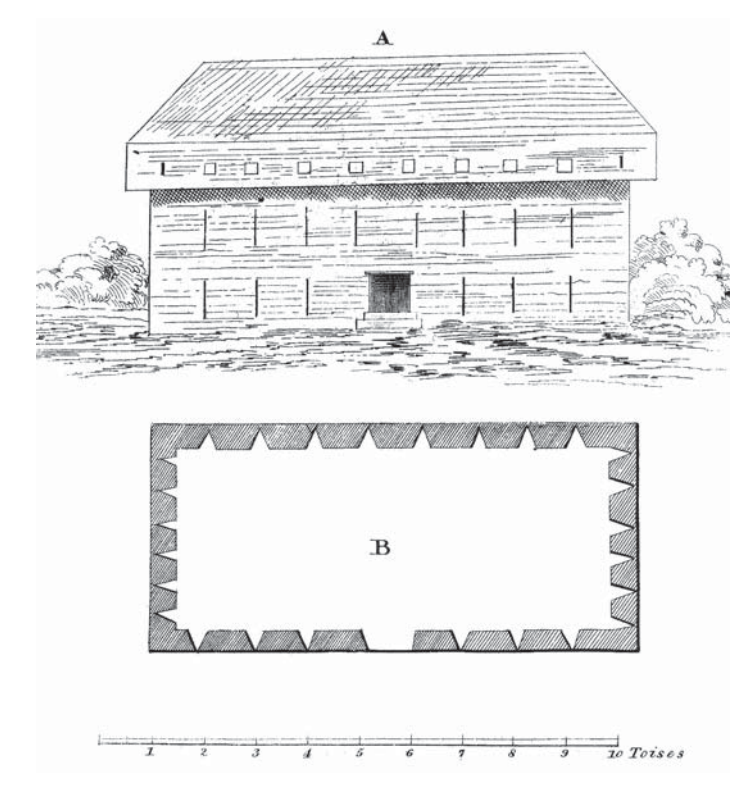
The Great Lakes were an exclusively French domain until 1722 when New York traders appeared at Oswego, on the southeast shore of Lake Ontario. The alarmed French built Fort Niagara in 1726 so as to deny Anglo-Americans penetration farther west. The New Yorkers therefore built their own masonry-fortified house in 1727. From 1741 it was surrounded by a 10.5ft-high crenellated stone wall with small towers on the southeast and northeast corners and featured three cannon facing the river. A detachment of troops was posted there and, over the years, a small town was built. By 1755 hostilities had broken out with the French and



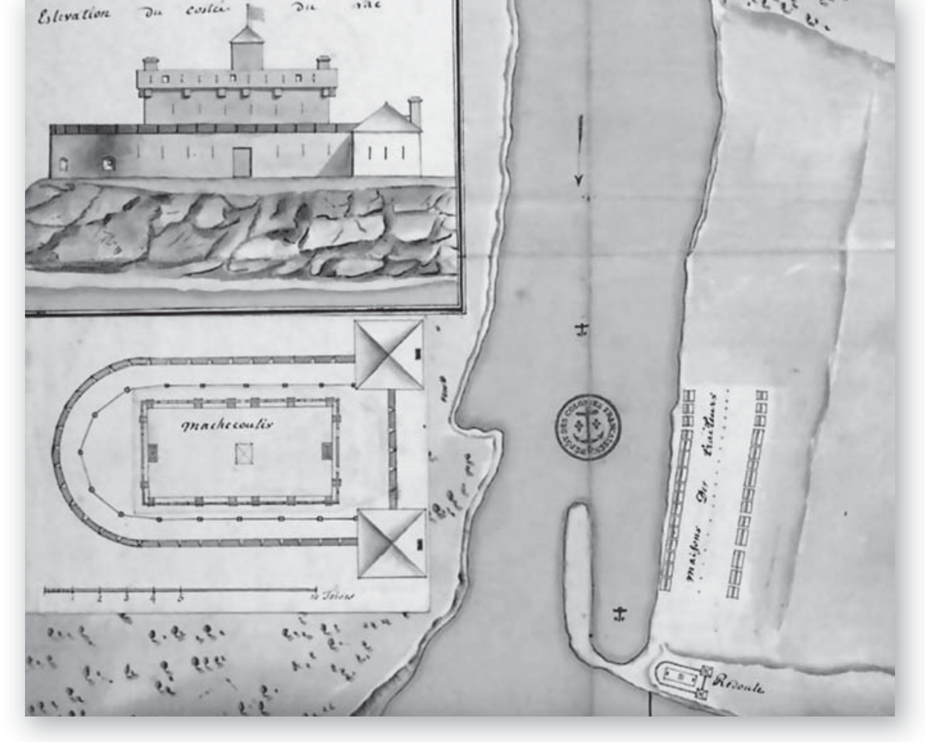
Fort Herkimer, 1756. It was originally a fortified house built of wood by trader John Harkimer during the early 1720s and rebuilt in stone from about 1737 at German Flats (or Little River). It also served as a store and trading post and was surrounded by a bastioned curtain wall on an elongated plan by the time the rendering for this print was taken in 1756. (Private collection)

two new forts were built on the heights above Fort George, which was reported as crumbling. To the east was the pentagon-shaped earth-and-timber Fort Ontario with five bastions surrounded by an 8ft-deep ditch. To the west now stood Fort Oswego, a stockade with entrenchments outside its three walls, since it was unfinished. A guardhouse within an earthen entrenchment stood at the edge of the town.

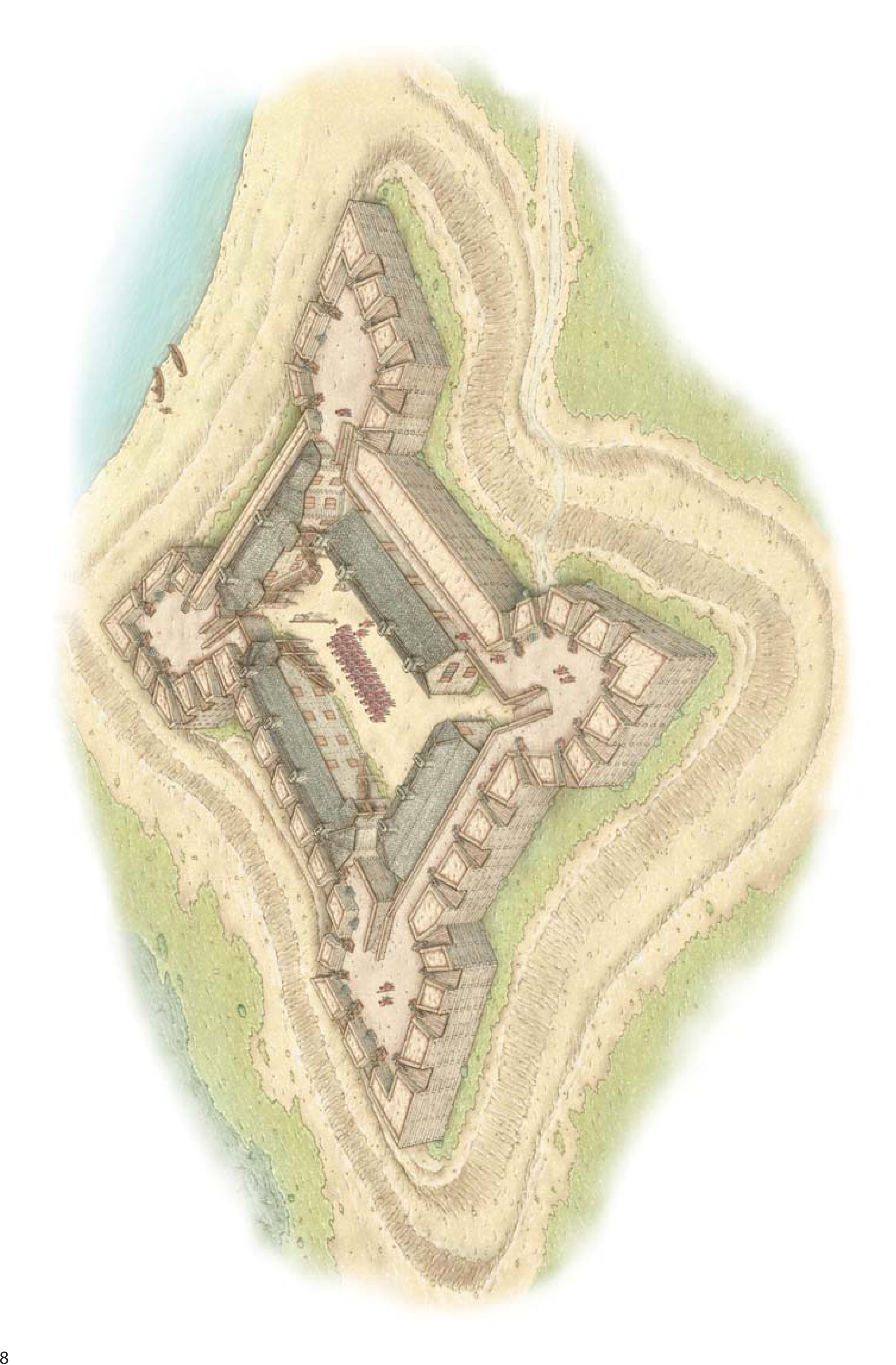
To access Lake Ontario the Anglo-Americans travelled along the Mohawk River to the Oneida Carrying Place and, by using Wood Creek, would eventually access the Oswego River. From the 1720s Fort Herkimer (Little River, later German Flats) and several other fortifications farther east were built and, in 1746, Fort Williams at Oneida Carrying Place. Fort Bull, a larger star-shaped stockade with four buildings within, was built there in late 1755. The French, who planned to march on Oswego, could not allow this and, on March 27, 1756, attacked and razed Fort Bull while Fort Williams was abandoned. In August 1756 General Montcalm's army laid siege to Oswego. The Anglo-American defenders extended some fieldworks on

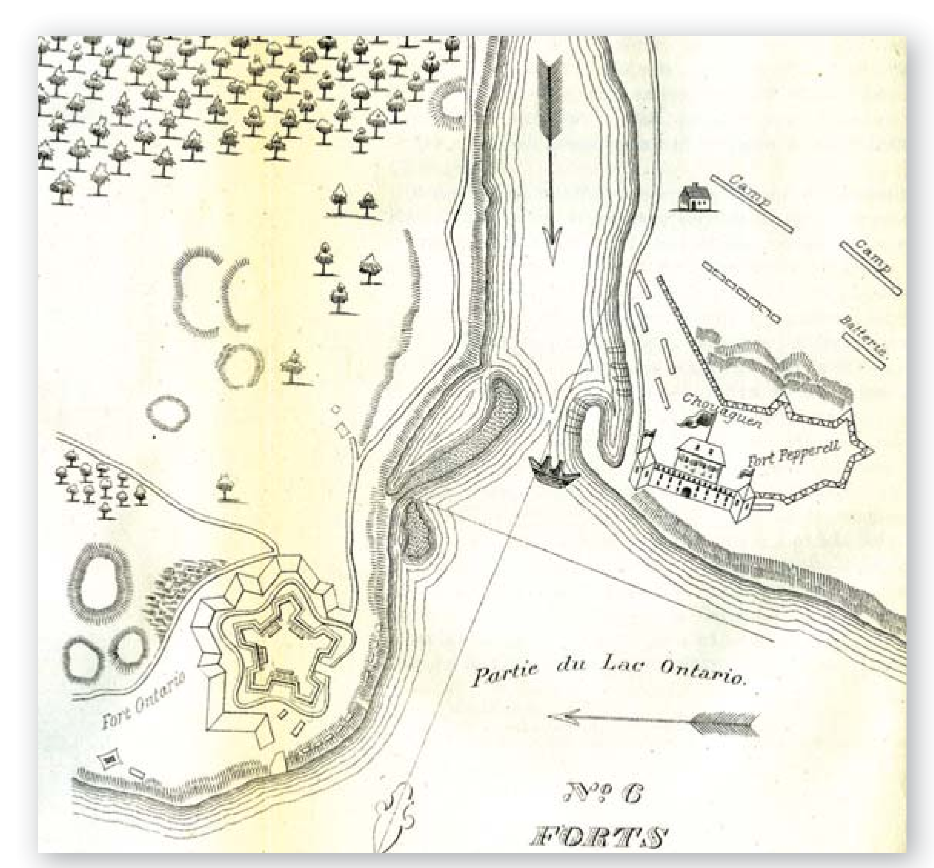


Fort Oswego, 1727. The Anglo-American establishment on Lake Ontario worried the French, who made intelligence reports about this large stone blockhouse of about 58ft (17.5m) by 26ft (8m), named Fort George. It featured a machicolated upper story. The place also had about 70 trader's shacks and a garrison of 60 soldiers. (Print after a drawing with a July 1727 report in France's Archives Nationales, Colonies, C11A, vol. 126)



Plan and elevation of Fort Oswego, 1749. The large stone blockhouse built in 1727 was surrounded from 1741 by a curtain wall with two turrets facing the river, shown on the left. It stood on the western shore of the river's mouth as it flowed into Lake Ontario (this map has the south at its top); its outline is visible at the lower right. (Archives Nationales, France, Dépot des Fortifications des Colonies, Amérique septentrionale)





Forts at Oswego, 1756. This plan made by Captain de Courville, an officer in General Montcalm's French army that captured Oswego in August, gives an idea of the fortifications existing at the time of the four-day siege. (Print after de Courville. Private collection)

the southwest side, but these old or defective forts were no match for the French siege batteries; Oswego capitulated and its forts were destroyed by the French. Once the French left, the Anglo-Americans cautiously came back and built Fort Wood Creek. In the summer of 1758 the much larger Fort Stanwix was built there (now Rome) to fully secure the Oneida Carrying Place. The Royal Blockhouse was also built nearby at Wood Creek near Lake Oneida. Oswego needed to be fortified too and, in 1759, the British built a large new Fort Ontario, again on a pentagon plan with five bastions. Although much reconstructed by the US Army thereafter, Fort Ontario's present outline still follows the 1759 plan.

D FORT WILLIAM HENRY, LAKE GEORGE, NEW YORK, 1755–57

Following Sir William Johnson's victory at Lake George over General Dieskau's French army on September 8, 1755, construction of Fort William Henry began under the direction of Engineer Captain William Eyre and, by November, the fort was completed. Named after two members of Britain's royal family, it was nevertheless known as "Fort Georges" to its French rivals. Situated on a height of about 23ft (7m), built of earth and logs on a somewhat irregular square plan of about 390ft^2 (120m^2) including the corner bastions, it was armed with 24 cannon and 17 swivel guns. The two bastions facing the lake each had a powder magazine. The northwest curtain wall faced Lake George, the northeast and southeast walls had a ditch outside them, and the southwest wall faced a large marsh. Within was a hospital and storehouses that could contain up to 2,500 barrels of provisions while the barracks could lodge up to 500 men. Casemates that could accommodate 200 men were also built under the barracks.

It was a work that was, on the whole, fairly typical of many other frontier forts. Fort William Henry proved effective in repulsing a vigorous French-and-Indian raid in March 1757, but could not resist General Montcalm's large French army that besieged it from August 3 to August 9, its cannon and mortar batteries concentrating their fire on the earth-and-timber fort. Following its surrender, the fort was destroyed by the French on August 15, 1757.

MARYLAND, NEW JERSEY, AND DELAWARE

Maryland

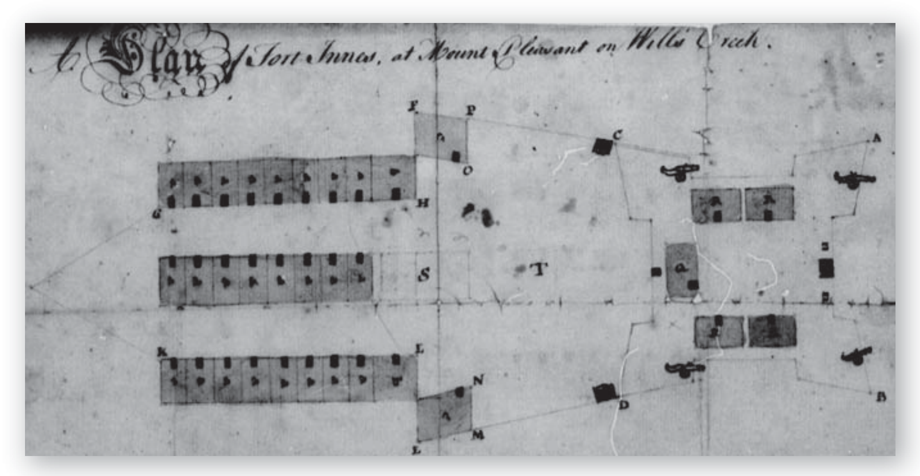
In 1634 the first permanent settlers in Maryland built St Mary's Fort, a square stockade with corner blockhouses mounted with six small cannon to protect St Mary's City, the first colonial capital. The Indians in that area posed no threat and, within a decade, the fort was abandoned. A few other small garrison houses, batteries, and fortified trading posts were built in eastern Maryland. In April 1650 the Maryland legislative assembly allowed a full-time garrison of six men under a captain to remain at the fort at St Inigo (or St Igniatius, now Beachville) harbor to defend against a possible naval threat, but it was soon abandoned. The town of Baltimore became the colonial capital in 1695 and, during the early 18th century, had a stockade wall with two gates facing inland as protection against an Indian attack. But, in time, the wall was considered useless and it gradually disappeared. From 1754 French and Indian raids intensified in western Maryland, driving settlers out. Virginians had built a trade fort at Wills Creek in 1749 and, five years later, it provided refuge to George Washington and his men after their capitulation at Fort Necessity. In 1755 it was rebuilt and renamed Fort Cumberland, a large work 120ft (36.5m) wide by 400ft (122m) long, and was a major military staging area for the campaigns towards the Ohio Valley. A few small stockade forts were built at that time in western Maryland, but Fort Frederick was the major work erected in 1756 by the colony: an impressive-looking structure built on a square plan with large bastions featuring stone walls. It provided a safe haven for settlers and was also an important rallying point for troops moving against the French in the Ohio Valley.

New Jersey

Initially part of the New Netherlands, the settlements in New Jersey became predominantly English as more colonists settled there from 1664. It was under no threat and its main military role in the colonial wars was to support the colony of New York. A few small stockade forts or blockhouses were built by militiamen, predominantly during 1756. The largest was Fort John's (Walpack Center), which was built in 1756. It was a 120ft^2 (36.5m^2) palisade with a blockhouse, a house, and a log cabin within. That same year the



Fort Frederick, Maryland, 1756–63. The province of Maryland had this fort built during 1756 to protect its western settlers. This large work consisted of stone curtain walls and bastions with three large buildings within. It remains today one of the best-preserved forts in the United States.



Fort Cumberland, Maryland, 1754–55. Also called Fort Innes, it was built on a height called Point Pleasant at the confluence of Wills Creek and a branch of the Potomac River. As seen on this plan drawn by George Washington, this stockade fort with four bastions mounted with cannon made it a very strong position. (Library of Congress, Washington)

smaller Fort Walpack (Flatbookville) was built featuring a $50ft^2$ ($15.2m^2$) palisade surrounding a small blockhouse and a church. In 1758 barracks were built at Trenton, Princeton, New Brunswick, Perth Amboy, and Elizabeth to house British troops.

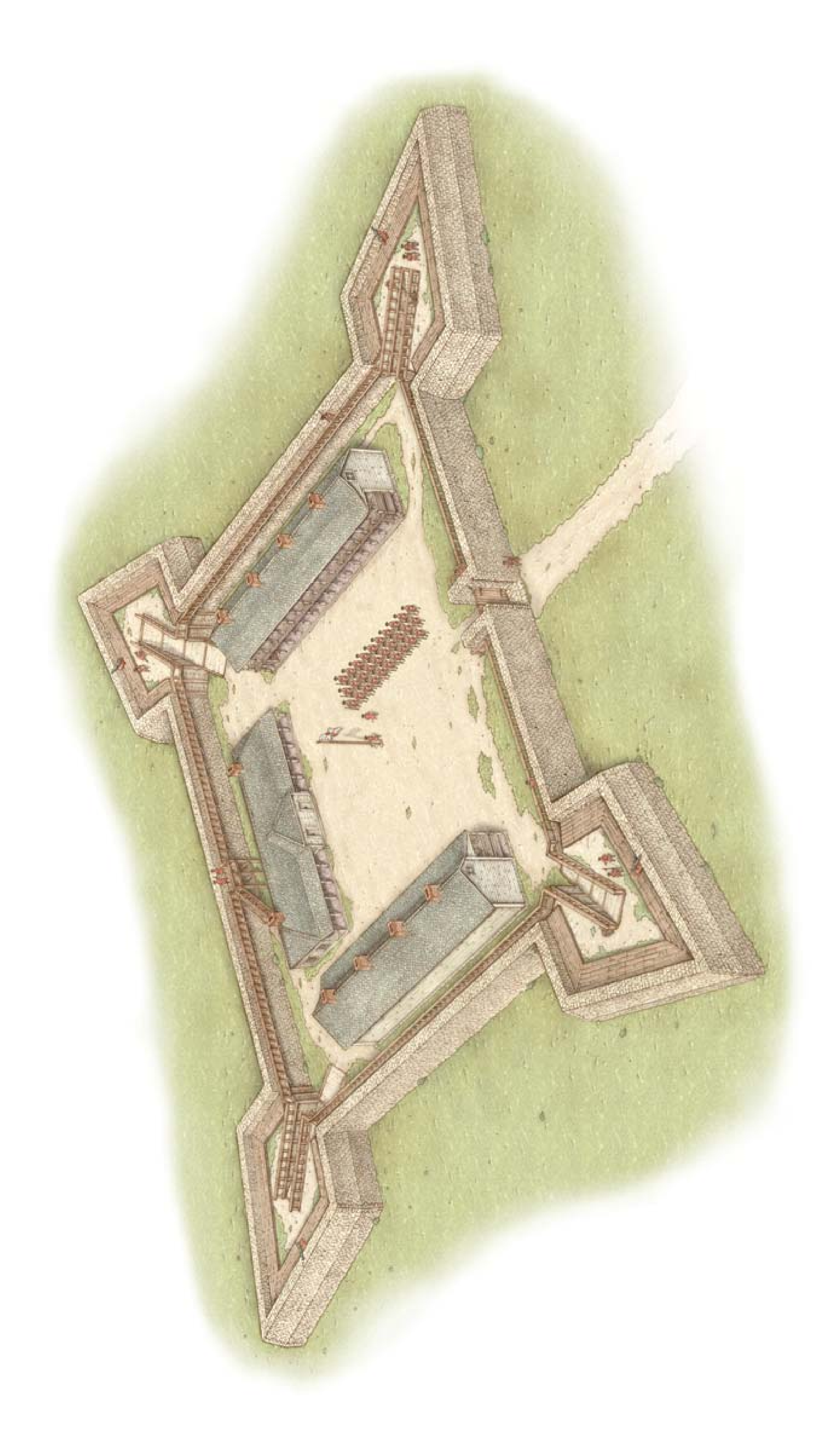
Delaware

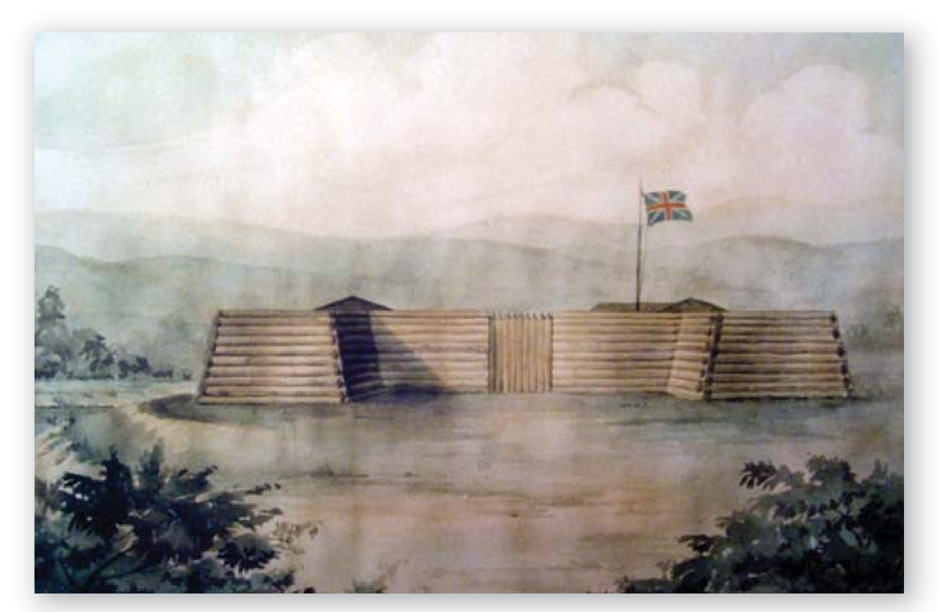
Settled by the Swedes in 1638 and taken over by the Dutch in 1655 and by the English in 1664 (see above), the settlements of Delaware were included in the colony of New York until 1681 when they formed part of the Pennsylvania royal grant. The area of the “Three Lower Counties” that formed Delaware was allowed by William Penn to have its own legislative assembly, its Swedish, Finnish, and English settlers having different values and faiths than the Quakers. It thus became an autonomous colony. The main forts were those originally built by the Swedes and the Dutch. Fort Christina, renamed Altena (Wilmington), and Fort Casimir, renamed New Castle by the British (New Castle), were initially occupied by British troops from 1664 and eventually abandoned during the 1680s. Apart from a battery of ten guns built in 1748 by Philadelphia’s military association near Wilmington (Delaware) called Fort Christiana and another four-gun battery built near New Castle that fired at a Spanish privateer in May 1748, there were no other sizeable fortifications in Delaware.

PENNSYLVANIA AND VIRGINIA

Pennsylvania

The area that became Pennsylvania in the royal grant to the Quakers in March 1681 originally included parts of Delaware and had a few English settlements from the 1660s. William Penn, leader of the Society of Friends, obtained the charter and gave the colony its name. Renowned for their frugality, industry, and kindness, the Quakers were also pacifists and believed that no man should fight or kill another man. This was at variance with the laws of England and the Quakers were persecuted. To solve the problem, the Crown granted them Pennsylvania, where they could live according to their beliefs. This province thus assumed a unique position in the world with regard to defense matters in that there were no military laws. In 1747, during the War of the Austrian Succession , many concerned citizens of Philadelphia who were not Quakers pressed the province’s government to allow fortifications to be built





Fort Ligonier, 1762. This rare view of the fort was made by Lieutenant Archibald Blane of the 60th (Royal Americans) Regiment on June 30, 1762. It shows the east wall's gate and its horizontally laid logs, the location of the flagpole, and the hip roofs of the buildings within. (Fort Ligonier Museum, Ligonier, Pennsylvania)

as protection against hostile ships and to raise volunteer troops. The government agreed and a large military association was soon organized, and money was raised to pay for the construction of a battery and to purchase cannon. Several batteries were built in 1748. The "Association Battery at Wicaco" (Southbank area of Philadelphia) initially had 16 guns and, by 1753, mounted 27 guns. The Society Hill Battery contained 13 guns. Two smaller batteries were also built farther south in Delaware (see above).

A few years later, western Pennsylvania was the scene of unprecedented fort construction caused by the Seven Years War, which had its roots in the area. Traders (mostly from Virginia) wandered into the Ohio Valley, which the French claimed as part of New France. To reinforce their claim, the French decided to build a string of forts from Lake Erie to the Ohio. The province of Pennsylvania was in no position to react, but Governor Robert Dinwiddie of Virginia did by sending young Major George Washington with a summons to the French at Fort Le Boeuf to evacuate in late 1753, which convinced them to reinforce their position instead. By April 1754 Virginian troops started to build Fort Prince George (or Trent's Fort) at the strategic confluence where the Alleghany and Monongahela rivers form the Ohio River when, on April 16, a large French force arrived, convinced "with great civility" the 40 Virginians to leave, and built Fort Duquesne on the spot. In late May, Ensign

E FORT FREDERICK, MARYLAND

Fort Frederick was built in 1756 in the Cumberland Valley to provide protection for the area's settlers and to block French and Indian war parties from going farther east. The province of Maryland resolved to construct a unusually robust structure with stone curtain walls 3ft wide (0.9m) at the base, which rose to a height of 18 feet (5.48m), the thickness tapering to 2ft (0.6m) at the top. The bastion walls were even thicker, being 4ft wide (1.2m) at the base. The fort was not intended to face an enemy armed with heavy artillery (most unlikely in that area) since it had no glacis nor earthen reinforcements to the walls. The stone walls were obviously fireproof against Indian fire arrows, but the buildings inside were made of wood. A 1778 letter mentions that the officers' quarters had two stories, but we have followed the original interpretation of the fort from the time of the French and Indian War. The bastions are shown as being filled in, as each was said to contain a cannon. The fort contained three buildings to accommodate lodging and supplies. At times it must have been filled with tents, as up to 700 people might seek shelter within its walls. Lurking raiders never dared attack this imposing fort. Its garrison was withdrawn in about 1760. Its walls remained and Fort Frederick was restored by the state of Maryland during the 20th century.

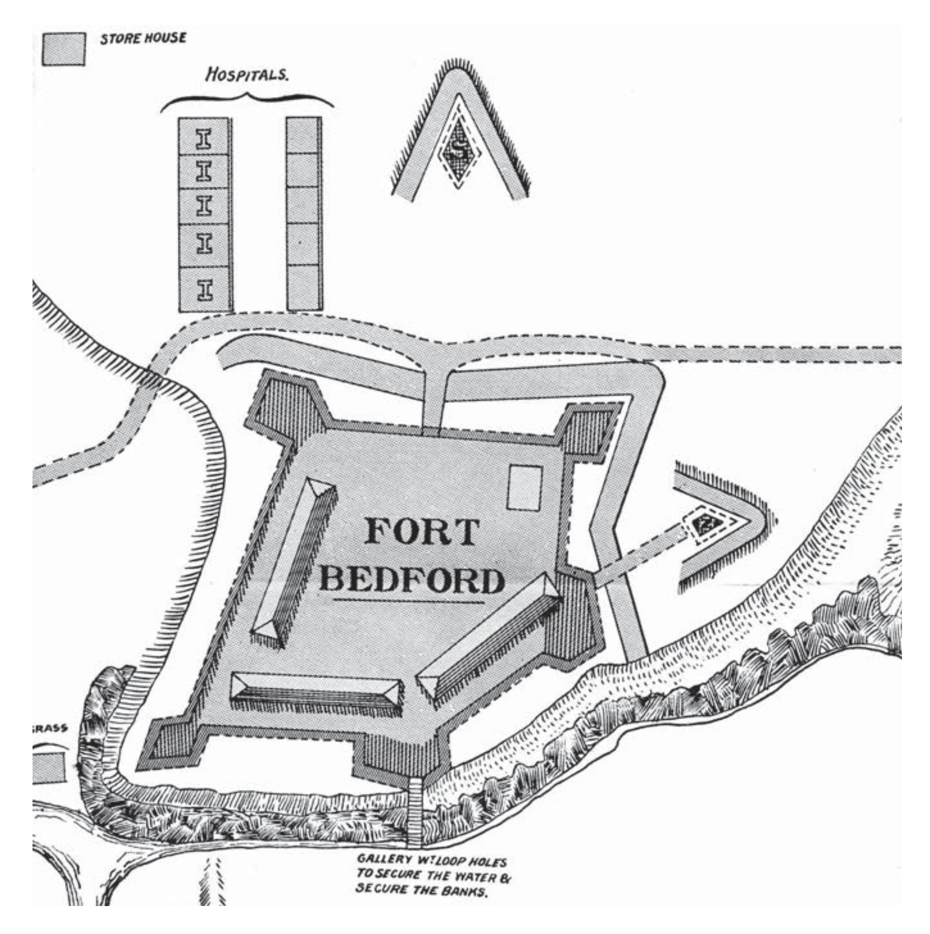
Fort Necessity, 1754. Built by George Washington and his troops in June 1754 at Great Meadows, it consisted of a very simple round stockade with trenches outside where a few swivel guns were mounted on posts. Within was a small square log hut. The illustration shows the reconstructed fort at Fort Necessity National Battlefield near Farmington, Pennsylvania.



Jummonville and his party sent to deliver a summons were ambushed by Washington and his men with allied Indians; this "Jummonville Incident" started open warfare. Anxious about the French's reaction, Washington built a "fort out of necessity" at Great Meadow. In early July, Fort Necessity was surrounded by up to 900 French and Indian attackers and, after losing a quarter of his 400 troops, Washington surrendered and evacuated on July 4, after signing a controversial capitulation. Fort Necessity was destroyed and, from then on and until the late 1750s, many French-allied Indian war parties attacked and devastated many frontier settlements and forts in Pennsylvania, Maryland, and Virginia (including the present state of West Virginia). For instance, Fort Granville built in 1755 by Pennsylvania provincial troops on the north shore of the Juanita River was destroyed by a French-and-Indian force in July 1756. This caused the evacuation of the stockade of Fort Shirley, also built in 1755, and the construction farther south of Forts Loudoun (also spelt Loudon) and Littleton; the latter was a bastioned stockade of a square shape, with each wall 100ft (30.5m) long. During those years, a multitude of small stockade or timber forts were built in an effort to protect communities that otherwise evacuated their homes to seek refuge farther east. In Pennsylvania, Benjamin Franklin and John Hamilton provided designs to put up simple-yet-effective curtain walls that would provide flanking and crossfire by adding angles.

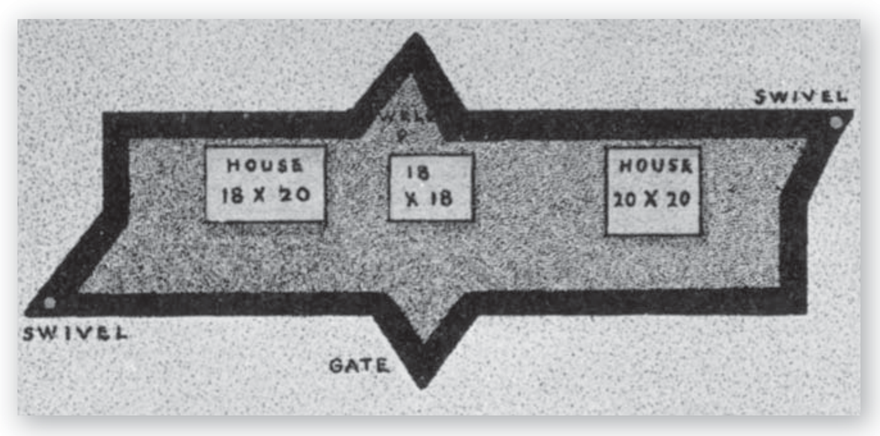
Plan of Fort Augusta, 1756. This fort (at Sunbury, Pennsylvania) guarded access to the Susquehanna River Valley. Built on a square plan with large bastions, the log curtain walls were 83ft (25.2m) long outside the bastions, each of which was 58 1/4ft (17.7m) along its long angle and 22ft (6.7m) along its short angle. Within were soldiers' barracks of 1½ stories high and officers' quarters. (Print after T. C. Montgomery's 1916 *Frontier Forts of Pennsylvania*)

In 1755 General Edward Braddock's Anglo-American army assembled at Fort Cumberland and was utterly defeated at Monongahela on July 9 by a French-and-Indian force. Besides the many small forts and fortified houses that were then built, Fort Augusta appeared in 1756 on the south shore of the Susquehanna River to prevent raiders from using this waterway. Fort Halifax, a 160ft^2 (48.7m^2) bastioned stockade, was a satellite post of Fort Augusta located farther south on the river but abandoned in 1757 when its garrison was moved to Fort Hunter, a blockhouse surrounded by a stockade built in late 1755 that was 6 miles (9.6km) north of Harris Ferry (Harrisburg).



Plan of Fort Bedford, 1758. This fort was built at Raystown (Pennsylvania) because it was designated the main assembly point for the army led by General Forbes against Fort Duquesne during 1758. It was an irregular pentagon of picketed curtain walls with five corner bastions and an 8ft-deep (2.4m) ditch outside. A couple of detached redoubts were built northwest (right) and southwest (top) of the fort. A branch of the Juanita River was nearby (bottom). The great majority of the 7,000 soldiers assembled at the fort camped outside the fort. Buildings such as the hospital and storehouses were built outside to accommodate these men. (Print after T. C. Montgomery's *Frontier Forts of Pennsylvania*, 1916)

In early 1758 some 7,000 British and American troops gathered in southeastern Pennsylvania under the command of Brigadier-General John Forbes. Their objective was to capture Fort Duquesne and drive the French out of the Ohio Valley. So as to avoid a disastrous ambush, such as had destroyed Braddock's army, Forbes opted for building a road right across southern Pennsylvania to insure a safe approach to the French fort. "Forbes's Road" was punctuated by several forts used as supply and rallying points by the Anglo-American army. From the fortified camp of Harris Ferry, the road progressed west to Carlisle and Shippenburg, which became major supply depots. Forts Loudoun and Lyttleton were also used and reinforced. By July the Juanita River was reached and Fort Bedford (Rayston) was built to provide an assembly point before moving on to cross the Allegheny Mountains. In August the army continued its progress and, after an advance party led by Major Grant had been wiped out by the



Fort Allen, 1756. This fort was one of those established on the frontier by the provincial government of Pennsylvania. Its plan is typical of those designed by Benjamin Franklin and John Hamilton; it features angles to provide crossfire, notably with swivel guns, and rectangular or square stockade curtain walls. (Print after T. C. Montgomery's 1916 *Frontier Forts of Pennsylvania*)





Fort Pitt, 1761–72. This very large fort consisted of an earth-and-timber pentagon with five large bastions. The bastions and curtain walls on the landward side were faced with bricks. Outside were ditches, glacis, a ravelin, and a small village also protected by earthworks. (Fort Pitt Museum, Pittsburgh)

French, it reached Loyalhanna in mid-September where another supply and assembly point was built: Fort Ligonier (see Plate F). On 12 October a French-and-Indian war party under Captain Aubry successfully raided the fort's outskirts, keeping at bay some 1,500 men. This humiliating experience was somewhat repeated on 12 November, but this time, Washington's Virginians – in spite of shooting at each other – managed a relief-and-pursuit operation. The three prisoners taken divulged that the French were evacuating Fort Duquesne. A 2,500-man column now marched unopposed towards the forks of the Ohio River. By November 24 it was a few miles from the fort when huge explosions were heard. The next day, Forbes and his men gazed at the charred remains of Fort Duquesne, which the French had destroyed as they departed from the Ohio. To secure the area, Fort Mercer, a square-bastioned earth-and-timber structure, was built near the site of the destroyed French fort while plans were drafted for a much larger pentagon fort with five bastions called Fort Pitt, which was built from 1759 to 1761. It was the largest and also one of the last forts to be built in Pennsylvania during this war; the fighting occurred mostly in Canada until its capitulation in September 1760. Thereafter,

F FORT LIGONIER

In mid-September 1758 General Forbes' army was cautiously approaching its objective, the French Fort Duquesne. It needed a final supply and regrouping base before moving on. The spot chosen was Loyalhanna, and Fort Ligonier was built. It was named in honor of Sir John Ligonier, commander-in-chief of the British army. It consisted of a 200ft^2 (70m^2) stockade with bastions, and a hornwork with a fascine artillery battery facing west. The curtain walls on the eastern side of the fort were thicker and built with earth and timber laid horizontally, while the other walls were palisades of logs planted in the ground. This depiction follows the interpretation of Charles M. Stotz, the historic-restoration architect who rebuilt the fort, but its walls may have had additional fraises and chevaux de frise, especially outside the battery. The fraises, however, had been removed from the top of the walls by 1762. The fort contained storehouses, officers' quarters, and a small house for General Forbes. There was a forge in the southeast bastion and an underground magazine in the northeast bastion. The troops had their tents around the fort, which were surrounded by extensive wooden outworks. Corrals for cattle and horses with more tents for troops were farther out. In spite of all these defenses, on October 12, 1758 the Anglo-American garrison of 1,500 men was chased out of the surroundings and had to take refuge in or near the fort from Captain Aubry's daring French and Indian raiders. In 1763 Fort Ligonier was attacked by Pontiac's Indians, but was not taken. Three years later its garrison was withdrawn and it was abandoned.

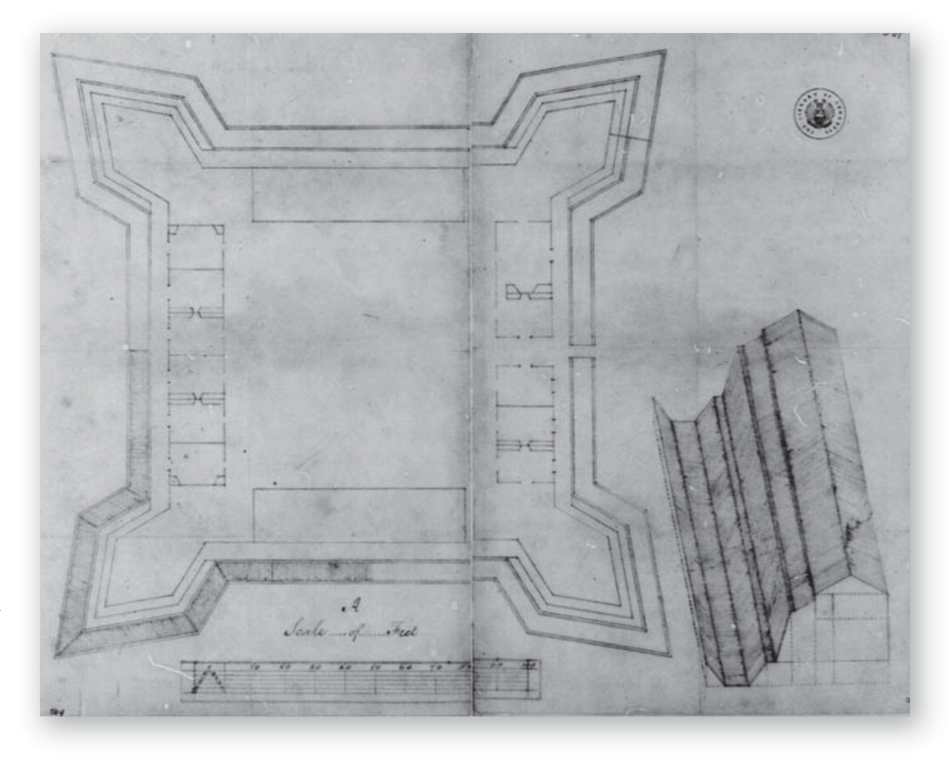


Fort Prince George, also called Captain [William] Trent's Fort, was built by Virginia provincial soldiers in April 1754. It was at the strategic confluence of the Alleghany and Monongahela rivers to form the mighty Ohio River, now the site of Point State Park in Pittsburgh. As seen by this model, it was a simple round structure that was unfinished when a large French force arrived, chased out the Virginians, razed the fort, and built Fort Duquesne on the spot. (Fort Pitt Museum, Pittsburgh)

British and American garrisons were posted at the former French forts of Venango, Le Boeuf, Presqu'île, and Sandusky. In May and June 1763 they were all taken by Pontiac's Indians. Fort Pitt and Fort Ligonier were not taken and, in August, Colonel Bouquet's British and American relief troops crushed Pontiac's Indians at Bushy Run.

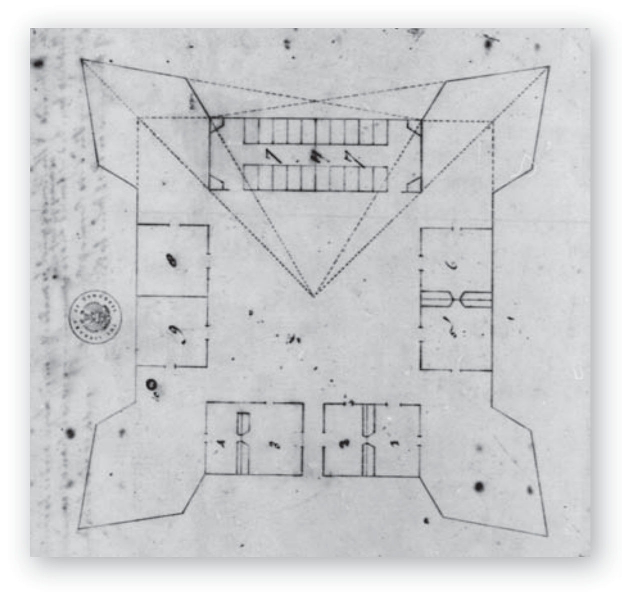
Virginia

Although they encountered many difficulties from 1607, the settlers of Virginia had succeeded in establishing a large, prosperous, and powerful colony by the end of the 17th century. While its coastal Indian population was practically annihilated, its English and African populations kept rising and numbered up to 300,000 souls (including 120,000 African-Americans) in the middle of the



Virginia frontier fort plan by George Washington, 1756. This plan for a fort with earth-and-timber curtain walls with a ditch is part of several "diagrams" drawn up by Washington for his officers sent out to build a line of forts across western Virginia. According to Washington, if "due attention is given to this plan, it will be impossible to err, tho' you otherwise may be unacquainted with the rules of fortifications." (Library of Congress, Washington)

18th century. In terms of defense, threats from either seaborne or Indian enemies were relatively few from the second half of the 17th century so large forts were not built. With the growth of Hampton, Fort George, a 20-gun battery was built there in 1727, but destroyed by a hurricane in 1749. In January 1755 Governor Dinwiddie reported "we have no forts in ye dominion" apart from "two small batteries on [the] York River" that were "no defense" against a powerful enemy fleet, and he proposed repairing Fort George and building a battery at Cape Henry. However, the most pressing threats now came from the frontier rather than by the sea.



Plan for a small Virginia frontier stockade fort by George Washington, 1756. This plan gave Washington's instructions for building a simple stockade fort with bastions. The timber quarters within also doubled as part of the curtain walls, a very common feature in American frontier forts. (Library of Congress, Washington)

The outbreak of warfare in the Ohio in 1754–55 left many settlements in western Virginia vulnerable to attack by the French and Indians. In March 1754 Governor Dinwiddie favored building "three or four forts" to secure the area and prevent the French from establishing posts on the Ohio. Soon thereafter, outlying forts such as Fort Cumberland (Maryland) and the short-lived Forts Prince George and Necessity were built by Virginians. Following Braddock's disaster on the Monongahela in July 1755 the frontier became almost defenseless against enemy raids. Colonel George Washington of the Virginia Militia was tasked with setting up a network of forts to provide some protection. He immediately went to work and, thanks to his many-faceted curiosity, was able to come up with remarkably good fort designs, generally square with bastions, which were adapted to particular features. In October 1755 Washington ordered Forts Ashby and Cocke built on Patterson's Creek to be "a quadrangular fort of ninety feet with bastions," with the same plan used for Forts Pleasant and Defiance on the south branch of the Potomac River early in 1756. Virginia's Fort Loudoun was built at Winchester and was the headquarters of the Virginia Militia. It consisted of earth walls faced with timber on a stone foundation laid in a square plan with bastions, and had 18 guns. By November 1756 some 17 forts had been built, garrisoned by about 2,000 militiamen and provincial soldiers. They were abandoned in the months and years following the 1758 expulsion of the French and their Indian allies from the Ohio Valley. The frontier area also had many settler's forts, blockhouses, and fortified houses built in the 1750s for local protection.

NORTH CAROLINA, SOUTH CAROLINA, AND GEORGIA

North Carolina

English colonists settled the area south of Virginia from the later part of the 17th century. In 1710 the colony of Carolina was divided into North and South Carolina. The following year North Carolina was embroiled in a conflict with Tuscarora Indians, who killed some 120 settlers in a bid to drive the colonists out along the Pamlico River. Other settlers quickly built several small stockade forts and a larger one, Fort Hyde, to protect the town of Bath. Volunteers from South Carolina came to reinforce local militiamen and, by March 1712, the Indians were driven into Chief Hancock's fort, which turned out to be a remarkable European-style work featuring ditches, log-and-earth curtain walls, and outworks designed by an escaped slave named Harry. After building Fort

Barnwell on a triangular plan to act as headquarters, the volunteers began siege operations. By April a battery started to bombard the Indian's fort, which fell on 17 April. The Indians withdrew to Fort Nohoroco, a stronghold that was also Harry's work. In March 1713 volunteers from both Carolinas invested and bombarded the fort, tried unsuccessfully to mine it, and finally stormed the place. The Indians resisted for three days with great bravery in one of the most desperate close-quarter battles fought in colonial America, which left some 900 Indians and 151 volunteers as casualties. The frontier was relatively quiet until 1756 when Fort Dobbs (Statesville) was built to provide protection from French and Indian raids. It consisted of a large timber loopholed and bastioned three-story "substantial building" measuring 40ft (12.1m) by 53ft (16.1m). Outside was a star-shaped perimeter consisting of a palisade and ditch. A band of Cherokee Indians attacked the fort on 27 February 1760 but were repulsed by its garrison of 46 men. The fort was abandoned in 1764.

North Carolina's coast was often raided by pirates as well as by Spanish and French privateers, but there was no major fortification until 1748 when Fort Johnston (Southport) was built at the mouth of Cape Fear. The fort was square with four bastions. It was destroyed by Patriots in 1775.

South Carolina

The first settlement in South Carolina was Charleston (called Charlestown or Charles Towne until 1783), founded in 1670. Then situated at Albemare Point on the west bank of the Ashley River, the town was quickly surrounded by a moat and a palisade for protection. In 1680 the colonists moved Charlestown to its present Oyster Point location at the confluence of the Cooper and Ashley rivers and surrounded it with earthworks and palisades. Over the years these fortifications were greatly improved with the addition of bastions and other features that were fairly complete by the 1690s. It made Charleston one of the best-fortified cities in colonial America. In August 1706 its garrison of militiamen and allied Indians repulsed a Spanish attack on the city. Two years later Fort Johnson was built on a triangular plan at the entrance to the harbor. Its walls were made of earth, timber, and oyster shells and its base facing the water featured a large battery of heavy cannon. Its landward curtain walls had bastions, palisades, and moats. It was the most formidable coastal fortification in the province, but it needed constant repairs due to its low-lying location near the sea. Charleston's fortifications remained until 1746–47 when a new line of curtain walls punctuated by five bastions was constructed to accommodate the city's growth. This wall went almost as far as the Ashley River. Eventually, it was not an enemy force but a horrific hurricane that destroyed part of the fortifications in September 1752. Repairs were made in 1757 but the city's defenses deteriorated due to urban expansion following the end of the Seven Years War. By then, Charleston was the fourth largest seaport in the Thirteen Colonies with a population of 11,000 souls. Fort Johnson, however, continued to be kept up and garrisoned.

As the settlers moved westward in the early 18th century they came into conflict with Indian nations, notably in 1715. The southwestern part of the province was especially exposed and the South Carolina legislature, in spite of budget problems, moved to establish a line of defense the following year by building three forts: Fort Moore (now Augusta, Georgia), Fort Congaree (Columbia), and Beaufort Fort (Beaufort). These forts were too distant from each other to permit coordinated actions against the Indians and also proved to be of little use against the Spanish or the French. Fort Congaree (Cayce) was

built in 1718 on the east bank of Congaree Creek. It appears to have had earthen walls edged by a moat with a palisade in its center on the landward side, and a simple palisade facing the water. It served as both a military and trading post, probably with little success as it was abandoned in 1722. Beaufort Fort was a small work, probably made of earth surrounded by a palisade, built in 1716 and rebuilt in 1724. It was garrisoned by provincial soldiers with some allied Indians and detachments of the South Carolina Independent Company in 1721–22 and 1727–34. When war broke out with the Yamassee Indians in 1726 the fort was in bad repair and needed to be replaced. However, it was only in 1734 that Fort Prince Frederick was built about 3 miles (4.8km) south of the town of Beaufort on the shore of the Beaufort River (then called Port Royal River). It was built of tabby on a rectangular plan with curtain walls 125ft (38m) and 75ft (22.8m) long, about 5ft (1.5m) high, and 5ft wide. It may have been surrounded by a moat. The side facing the river featured a gun battery and there were at least two buildings inside. It was garrisoned by provincial soldiers or British regulars until 1758. By then it had been considered useless for at least ten years.

Fort Littleton was finally built from 1758 at Spanish Point, an excellent position about a mile and a half (2.4km) from Beaufort. It was a much larger fort than its predecessors, being built of tabby on a triangular plan 375ft (114.3m) long at its base, which faced the Beaufort River. That wall had 19 embrasures for guns, which rested on a plank platform 18ft (5.4m) wide and dominated naval access on the river. The side curtain walls were 400ft (121.9m) long, coming to a bastion where they formed a point. A moat was outside the walls. Inside was a large barrack building for soldiers, officers' lodgings, the powder magazine, and an oven for heated shot. The fort's construction went on for four years. Beaufort was never attacked and the garrison was withdrawn from the fort in about 1766.

Further west, Anglo-American settlers came into contact with the mostly hostile Cherokee Indians. To provide protection and a military base, the province built Fort Prince George at Keowe in 1753 on a square plan with bastions, its walls made of earth and wood. It was besieged by the Cherokee



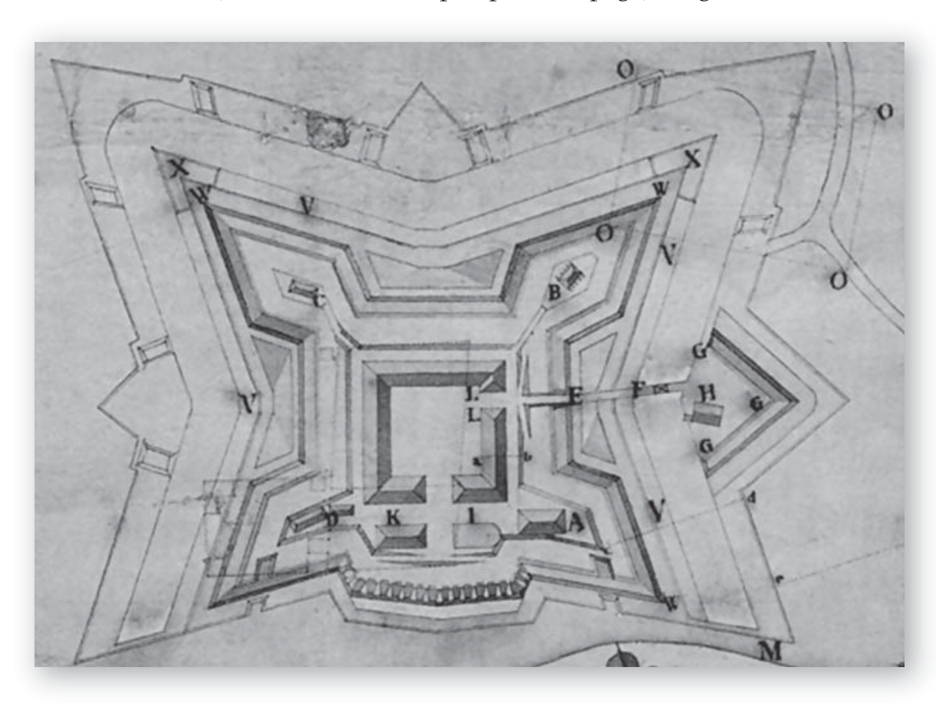
Plan of Charleston, South Carolina, 1704. These were the fortifications in place when the Spanish were repulsed in 1706. Access was very difficult, the city being built on high ground surrounded by marshes and brooks on the landward side and the river on the other. (Private collection)

from January 1760 until June when a relief column arrived. This fort had a regular garrison until 1766. Fort Loudoun was built in 1756–57 on a elongated diamond plan with two small and two large bastions sited on the south bank of the Little Tennessee River (near Vonore, Tennessee). Its walls were made of earth packed against a palisade, and a ditch surrounded the fort. Relations with the Cherokee worsened and, in January 1760, they besieged the fort until its starved garrison capitulated in August. The garrison was slaughtered and the fort destroyed. A number of smaller stockade forts and fortified houses were built throughout the province during conflicts with the Indians; the French and the Spanish ones were mostly abandoned after the Seven Years War.

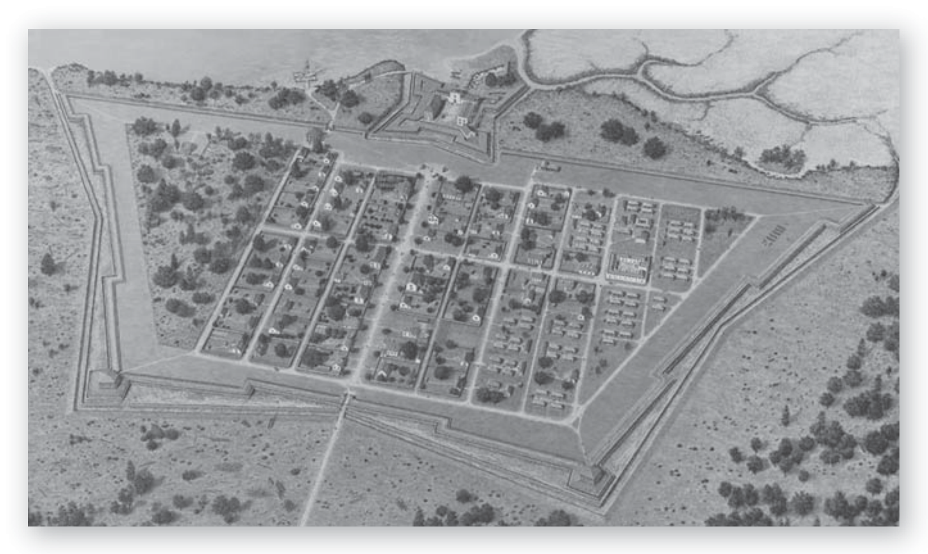
Georgia

Prior to its establishment as a separate colony in 1733 the territory that became known as Georgia was considered part of South Carolina. Further south was the Spanish colony of Florida. The Spanish claimed that the border was north of Savannah, about halfway between that town and Charleston, South Carolina, while the British said it was south of the St John River. The British built Fort King George on the Altamaha River (1 mile, or 1.6 km, southwest of Darien) in 1721 to uphold Britain's claim. It consisted of an earthen curtain wall facing landward, and, in the area facing the river, a palisade, with the fort laid out in a irregular triangle with a moat that had a berm. Within was a three-story timber blockhouse, a guardhouse, officers' quarters, soldiers' barracks, and huts. In January 1726 a fire destroyed the blockhouse and the barracks. The garrison was withdrawn and the fort abandoned in September 1727 when hostile Yamassee Indians threatened it.

In January 1734 Governor Oglethorpe decided to establish settlements south of Savannah to act as a buffer against the Spanish. On February 19 work started on the new town of Frederica on St Simons Island near the shore of the Frederica River. Frederica was primarily a military establishment and was laid out as a fortress (see illustration at top of previous page). To guard the entrance



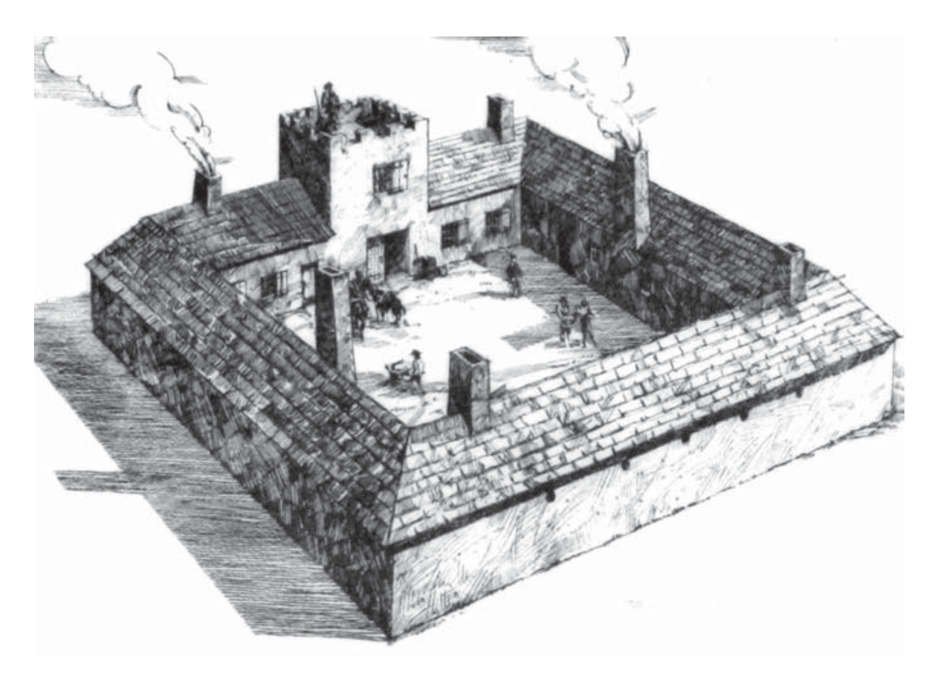
Plan of Fort St Simons, near Frederica, Georgia, *c.*1738. This fort was built by English troops in 1738 to guard the entrance to the Frederica River, through which shipping had to pass to reach the town of Frederica. Its main feature was a battery that could accommodate up to 17 cannon facing the river. (Fort Frederica National Monument, US National Park Service)



Frederica, Georgia, 1736–48. The fortress settlement of Frederica was established three years after the foundation of the colony of Georgia to secure the contested southern frontier with the Spanish in Florida. The town was protected by curtain walls made of earth and cedar posts that were about 10ft (3.04m) high, the landward side being surrounded by a moat. The adjoining Fort Frederica (top) acted as its citadel, featuring three bastions and a projecting spur battery of 18-pdr guns to engage enemy ships. There was also a fortified military barracks in the town (right of picture). (Painting by L. Kenneth Townsend. Fort Frederica National Monument, US National Park Service)

to Frederica's harbor, Delegal's Fort was built in April 1736 by a party of soldiers of the South Carolina Independent Company on the southern end of St Simons Island. The detachment being under the command of Lieutenant Philip Delegal, the fort, which was really a battery, became known by his name. Two years later the larger Fort St Simons was built on the site, the former Delegal's Fort being incorporated in the new structure. It was designed on a square plan with bastions, curtain walls, ditches, and glacis, but its main feature was the large battery facing the water. Further south, several fortified posts were built, including Fort St Andrew, a star-shaped work of 65 by 130ft (20 by 40m) plus its bastions and an outside battery, sited on Cumberland Island and Fort Prince William on the island's southern tip and consisting of a small stockade mounted with eight guns.

Governor Oglethorpe's foreboding regarding the Spanish proved to be correct. Great Britain declared war on Spain in 1739. In June 1740, Oglethorpe



Fort Frederica barracks, *c.*1742. At the time of the Spanish attack Frederica had about 200 troops in garrison. Some lived in town, others in nearby clapboard huts or shacks, and up to about 100 men could lodge in the fort's barracks, which were made of tabby. (Fort Frederica National Monument, US National Park Service)

unsuccessfully besieged St Augustine. The Spanish response came in early July 1742 when a Spanish fleet of 36 vessels with 2,000 men on board under the command of Florida Governor Manuel de Montiano appeared off St Simons Island. An artillery duel between Fort St Simons and the ships did not cause much damage to either side, but the Spanish managed to land their troops on the island thus outflanking the British position. The fort's garrison retreated to Fort Frederica. Montiano now marched his army to attack Frederica, but Oglethorpe posted his troops outside and, on July 7, defeated the Spanish at Bloody Marsh. However, the isolated Fort St Andrew and Fort Prince William were abandoned in June and July 1742, the latter after repulsing a Spanish attack. Flushed with his success, Oglethorpe tried again to capture St Augustine, but was foiled in September 1742 and again in April 1743. Except for the accidental explosion of Fort Frederica's powder magazine on March 22, 1743, the Georgia–Florida frontier was relatively quiet thereafter. Following the end of the war in 1748, Oglethorpe's Regiment was ordered disbanded. The withdrawal of Frederica's garrison in 1749 sealed the fate of a town that thrived largely because of military budgets. Within a few years most of its population had departed and its neglected fortifications had decayed.

NOVA SCOTIA, NEWFOUNDLAND, CANADA, AND HUDSON'S BAY

Nova Scotia

In 1621 James I of England and VI of Scotland granted substantial parts of North America's northeastern coast to the Scottish Earl of Stirling for the purpose of setting up colonies in "Nova Scotia" – New Scotland. The first settlement was a small Scots colony established in 1629 at Port Royal, which included a small wooden fort named Fort Charles. After a harsh winter, the colony was abandoned. Meanwhile, Sir William Alexander and, in July 1629, a party of Scots built a small settlement protected by Fort Rosemar at Port-aux-Baleines on Cape Breton Island. This colony, known as Lord



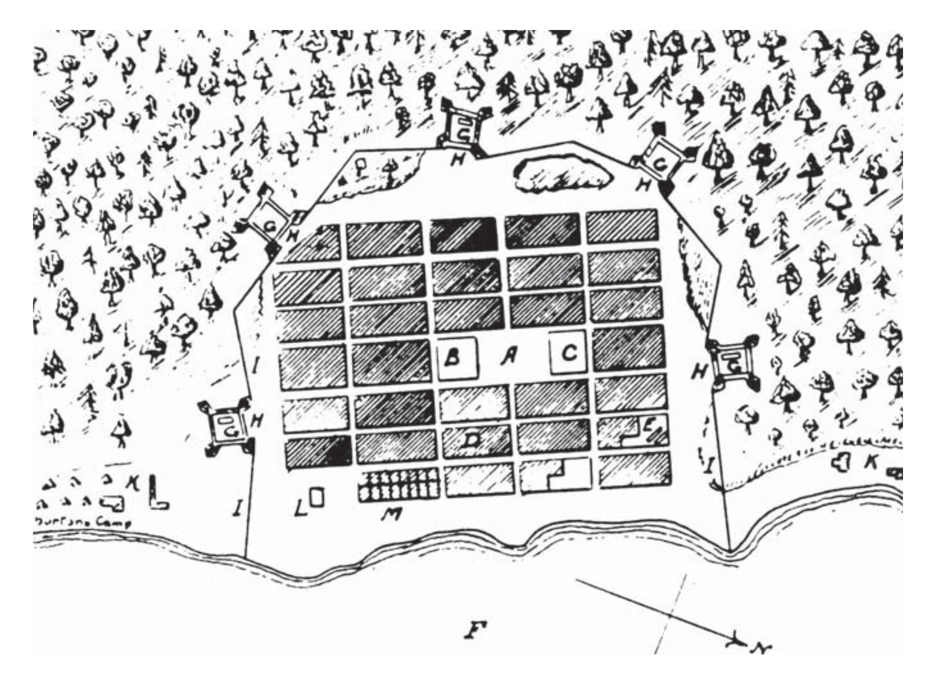
The founding of the city of Halifax in Nova Scotia in 1749. The new town was initially protected by a wooden palisade, which featured five small forts with small corner bastions. One of these forts was built on a hill and evolved into the present Halifax Citadel. Shore batteries built at the harbor and on George's Island could deliver deadly crossfire into any hostile ship that ventured close to the city. Thanks to its strategic location and superb harbor, Halifax quickly became the "Warden of the North" — the most important Royal Navy base in America. (Print after C. W. Jefferys)



Fort Edward, Nova Scotia, 1753. The blockhouse surmounted by the flag was the redoubt of this stockade fort and is still standing today in the town of Windsor. (Detail from a print after Captain John Hamilton, 40th Foot. Library and Archives Canada, C2708)

Ochiltree's settlement, did not last for long. On September 8 two French ships out of Dieppe under Captain Daniel arrived and, after having prepared "ladders and other things necessary to besiege and escalade the [walls of the] fort" his men attacked. After exchanging a few shots, the 15-man garrison, said to have been well armed with muskets and armor, put up the white French standard and surrendered. Captain Daniel had the "Standards of the King of England replaced by those of the King [of France] my master." The French thereafter asserted their presence and colonized the area.

Permanent British presence dates from the surrender of the French at Port Royal in 1710 and the subsequent cession of Acadia, which became Nova Scotia following the 1713 Treaty of Utrecht. Port Royal was renamed Annapolis Royal in honor of Queen Anne and its French fort was christened Fort Anne. Apart for minor repairs and improvements it remained basically the same for the next half century. Most of the regular garrison was posted there with the rest at Canso where the earth-and-timber Fort William



Plan of Halifax, 1749. A: parade; B: courthouse and prison; C: church; D: governor's house; E and L: storehouses; F: harbor; G: barracks for soldiers (two companies each); H: forts of palisades; I: walls of palisades; K: public houses (outside the town's walls). (Library and Archives Canada, Ottawa)

Augustus was built on Grassy Island. On May 24, 1744 the French from Louisbourg easily took Canso, which was basically indefensible due to neglect of its fortifications. Grand Pré and the outskirts of Annapolis were also raided by the French and Indians in the 1740s. Louisbourg was taken by the New Englanders in 1745 and returned to France by the peace treaty of 1748, much to the disgust of the American colonies. The British now decided to establish a strong presence in Nova Scotia. In 1749 some 1,300 colonists accompanied by British troops landed at Halifax and started building the town together with its palisade walls and outlying forts. The palisade wall was punctuated by five small forts, which seem to have remained standing until the end of the Seven Years War. Batteries were also built to protect the harbor, as well as secondary forts in various locations.

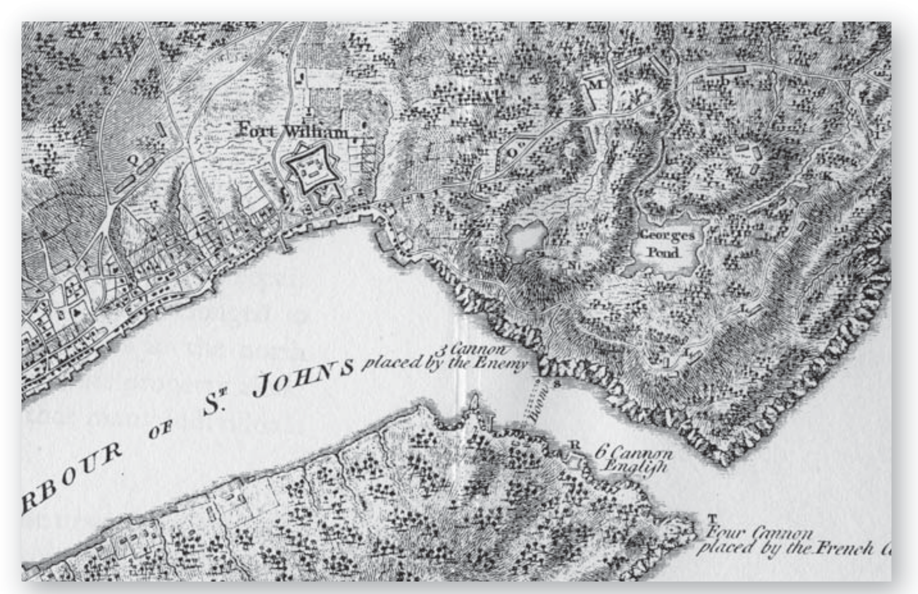
In the fall of 1749 a blockhouse surrounded by a stockade was built at Minas. The following year a similar work, Fort Edward, was built at Windsor. Fort Lawrence was built on the British side of the isthmus of Chignecto on a square plan with bastions. It had earth-and-palisade curtain walls with a ditch and two blockhouses in opposite bastions. This was where the British troops assembled in 1755 before besieging and capturing the nearby French Fort Beauséjour, which was renamed Fort Cumberland. In an effort to stem guerrilla-style raids from Acadians in what is now New Brunswick, British troops built the star-shaped earth-and-timber Fort Frederick in 1758, at the site of what is now the city of St John.

Newfoundland

During the 1500s a predominantly English presence that centered at St John's harbor on the eastern shore was established. There were merchant's houses and stores on the harbor, but due to the seasonal schedules of fishing fleets no permanent settlement was established there.

The earliest colonizing attempt was made in 1610 at Cupids in Conception Bay. Other attempts at Trepassey Bay in 1616 and Trinity Bay three years later also failed. In August 1621 a dozen colonists led by Captain Edward Wynne, "Governor of the Colony of Ferryland, within the Province of Avalon," arrived to establish a settlement sponsored by Henry Calvert, Lord Baltimore, who was looking for a haven for English Roman Catholics. Earthworks were built on the water's edge. In early 1622 a palisade "with post and rail seven foot high, sharpened at the top" was added. More settlers came in the following years and, in 1628–29, Lord Baltimore himself spent the winter in Ferryland, an experience he found much harsher than expected. As a result, he sought and obtained a land grant farther south in what became Maryland from 1634. Ferryland's fortifications were allowed to decay thereafter. When four Dutch warships arrived to raid Ferryland in September 1673 they found the "fort" in shambles; they looted and burned what remained. Ferryland was rebuilt, but attacked and looted again in September 1696, this time by a French fleet that had just been repulsed from Bay Bulls' five small forts, probably shore batteries, aided by an English frigate.

St John's harbor remained the island's main English settlement. In 1665 it was easily taken and looted by a Dutch fleet led by Admiral De Ruyter. There appears to have been no substantial fortifications until 1673 when Christopher Martin, an English merchant captain, landed six cannon from his ship and installed them in an earthen battery at Chain Rock commanding the narrow entrance leading into the harbor. Later that year three Dutch ships attacked but were repulsed by Martin and 23 men serving the guns.



Plan of St John's (Newfoundland), 1762. Fort William, built from the late 17th century, was the town's main defense work (top center), but was in ruinous condition by 1762. A small battery and a boom were at the harbor's narrow entrance. (From Mante's 1772 *History of the Late War in North America*)

Thereafter, more batteries were built, including one on the opposite side of "the Narrows" to provide a crossfire. In 1689, a large fort named Fort William was built overlooking the town, and a second fort, known as Fort George, was at the east end of the harbor. In 1696 the French took St John's, destroying much of the town and its forts. The following summer Gibson's Regiment with a detachment of gunners and Engineer Michael Richards arrived and, by September, had rebuilt Fort William. A regular garrison was henceforth posted there. During the summer of 1704 the French raided Bonavista and, in December of that year, attacked St John's. The premature fire of a French attacker warned the English garrison, which managed to close the gates of Fort William. The French took the town, but not the fort. French batteries silenced the English artillery there, but the garrison gave a spirited defense and the French left without having captured the fort.

At the end of December 1708 a larger French force again attacked St John's. In January 1709 Fort William was stormed and its garrison surrendered after some spirited fighting. French Commander St Ovide de Brouillan described Fort William as a work with sturdy ramparts 18ft (5.4m) high and armed with 18 cannon, four large bomb mortars, and 20 grenade mortars. It featured elaborate outworks including a ditch, glacis, and a covered way. A smaller adjoining fort armed with five 36-pdr guns, four 24-pdr guns, a bomb mortar, and six grenade mortars on a height at the harbor's entrance also surrendered. The French abandoned St John's in April and the British came back to a ruined city and fort.

The 1713 Treaty of Utrecht ceded all of Newfoundland to Britain. The forts at St John's were repaired and a British garrison now stood guard at the former French settlement of Placentia, on the southeastern shore. There, the British repaired the fort on Castle Hill and, finding the old Fort Louis much deteriorated, built a new work called Fort Frederick at the entrance to the harbor. A battery was also placed on the opposite side of the entrance. Placentia was never attacked, but St John's was raided and taken by the French again in June 1762, being quickly retaken by an Anglo-American force in September. Thereafter fortifications were improved by the construction of works on top of Signal Hill and of Fort Amherst on the southern side of the Narrows.



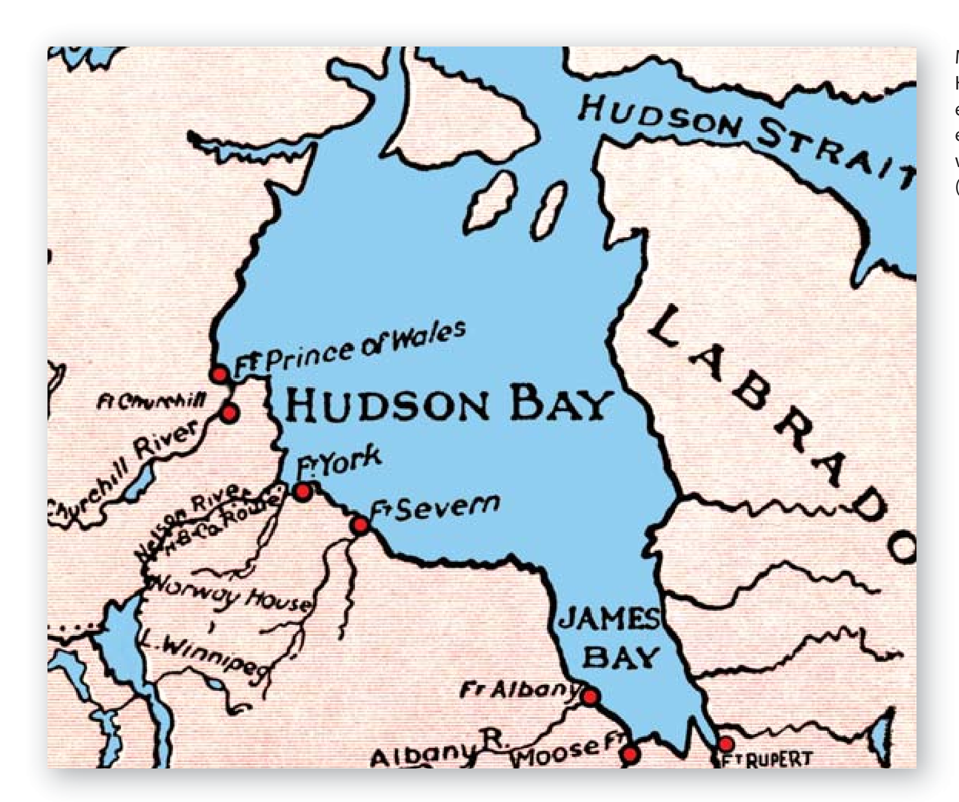
Changing the garrison of Detroit, November 29, 1760. French forts and fortified towns in Canada not already taken were surrendered to British troops following the capitulation of the French army at Montréal on September 8, 1760. This evocative painting by Don Troiani shows the departure of Detroit's French garrison escorted by British redcoats and green-coated American rangers. (By kind permission of the artist. Photos courtesy of the Military & Historical Image Bank)

Canada

The capitulation of Canada on September 8, 1760 officially ended hostilities in North America. All remaining French forts that had not been occupied by British and/or American troops were to be surrendered by their French garrisons. This notably included the vast domain dotted with French forts on the western Great Lakes and beyond (see Fortress 93: *The Forts of New France*, Osprey: Oxford, 2010). Thus, the large frontier town of Detroit changed flags on November 29, 1760 and Michilimackinac on October 1, 1761. Fortifications were kept up by the new British garrisons where needed, but no further outstanding constructions were made; no one knew if Canada would be returned to France or kept by Britain until a treaty ending the war was signed. In November 1762 General Amherst had a premonition that the frontier forts might be attacked "by an Enemy" and called for 7,500 troops to garrison them (WO 34/93). Sure enough, Pontiac's Indians set the frontier



Fort Prince of Wales, Hudson's Bay. This amazing stone fort was built by the Hudson's Bay Company, certainly the only Vauban-style fortification in North America facing the Arctic Ocean, and perhaps elsewhere also. Its foundations were laid in 1731 and curtain walls were built by 1746. It was armed with up to 40 guns. (Photo by Ansgar Walk/Wikimedia)



Map of the British forts on Hudson's Bay. All had various earth-and-timber fortifications except for Fort Prince of Wales, which was made of stone. (Private collection)

ablaze in May 1763, taking forts in western Pennsylvania (see above). Forts Michilimackinac, Ouiatenon, and St Joseph also fell while Detroit was besieged. The town was well protected by the palisade fortifications put up by the French and, following defeat at Bushy Run, Pontiac lifted the siege and made peace with the new British masters of North America.

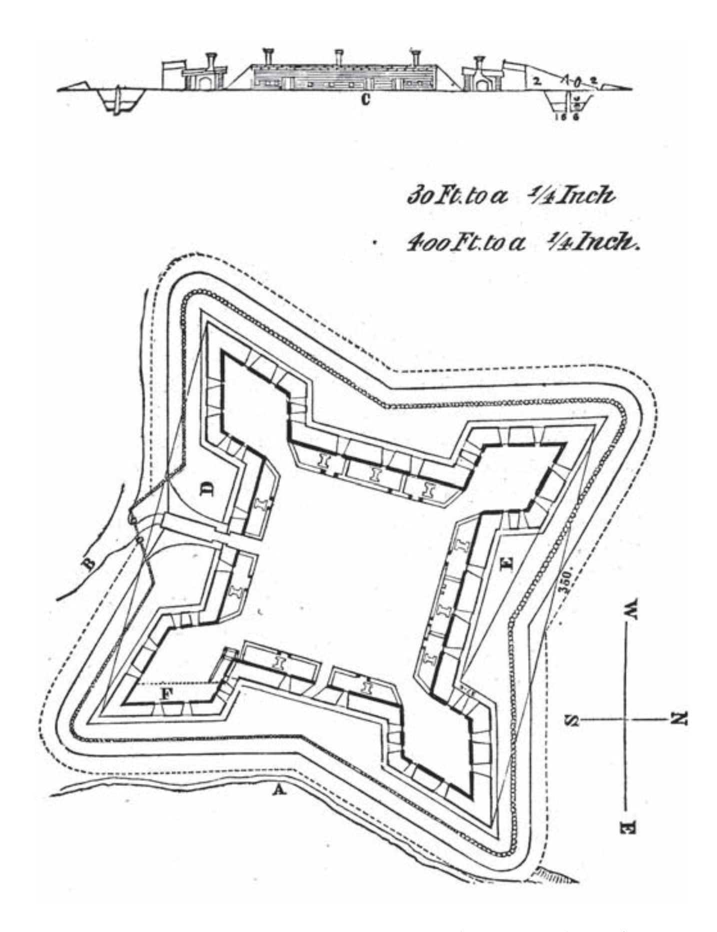
Hudson's Bay

With the bay ceded to Britain in 1713, the Hudson's Bay Company worried about protecting its trading posts. Fort Prince of Wales was built from 1731 at the mouth of the Churchill River as the stone citadel of its trading posts in the bay. The Hudson's Bay Company also had stockade forts in the interior. All were manned by its fur-trading employees; there were no British military garrisons posted there, but the staff was instructed in 1744 to have their cannon and small arms "loaded and in good order," and to exercise with them once a week "till well disciplined, and thereafter once a month." Indian auxiliaries at some forts were also organized as "Home Guards."

LIFE IN THE FORTS

Because of the great variety of forts as well as their geographical locations, the lifestyles of those who inhabited them could be radically different from one fort to the other. For a great many forts in the early settlements and on the frontier, the "garrison" consisted of the armed male settlers and, very often, their families. The presence of women and children in these forts goes back to the very earliest settlements and was common for the whole period under study. We have shown that in many provincial forts, such as Fort No. 4, settlers' homes were also the fort's curtain walls. Thus, life in these forts was much more like what one would expect in a farmer's village, but with militia activities and training

being of the utmost importance. Every man obviously had to take his turn standing watch day and night. There might have been a small detachment of provincial or royal soldiers present, but they would have mostly lived with the families.



Plan of Fort Stanwix, 1758. Construction of this fort at the strategic Oneida Carrying Place (now Rome, New York) was started on 26 August 1758 by troops under the command of Brigadier General John Stanwix, hence its name. It consisted of an earth-and-wood fort built on a square plan with large bastions, and was not completed until 1762. (Print after original plan. Private collection)

Early regular garrisons were small in number and lived essentially in the communities that they protected. In the 18th century more and more regular royal troops were posted in the American colonies as time passed, and garrison life took on a more military and disciplined stance with sizeable barrack blocks being built to house the troops. Although there were female camp followers with children, the presence of women and children was much less important in the large royal forts, especially as the number of troops posted in North America expanded. By the time of the Seven Years War, housing the tens of thousands of regular and provincial soldiers became a major issue; the American colonists were totally opposed to quartering them in their homes. Lodgings in forts overflowed and barracks were built to cope with the demand since tent cities could only be put up in mild temperatures. According to an October 1758 list of stores at Albany, lodgings would have wooden beds, bolster cases, sheets, chamber pots, bed pans, wooden bowls, spoons, brass kettles, and some tools (WO 34/75). Not luxurious, obviously, but consistent with standards for everyday life in the lower strata of society.

THE FORTS TODAY

The great majority of these forts have vanished or have been built over, either by the growth of cities (New York City, Wilmington, Pittsburgh, Detroit) or replaced by newer fortifications (Boston's Fort Independence over Castle William, Halifax's Citadel, Oswego's Fort Ontario). Nearly all are designated by a plaque at the very least. Some have escaped oblivion and the remains have been preserved, sometimes restored, with interpretation centers or museums nearby (Frederica, Fort Pitt, Jamestown, Fort Frederick, Fort Crown Point, Newfoundland's St John's forts, etc.) or rebuilt (Forts No. 4, Ligonier, Stanwix, Tennessee's Loudoun, etc.). The sites of most forts mentioned can be reached by the US Interstate or Trans-Canada Highway systems that connect to smaller local roads. Planes and/or ferries are necessary to visit those forts in Newfoundland and on the shores of Hudson's Bay. One will also find, in rural areas, strongly built houses that were once settlers' forts. Engaging on a trip to visit the forts of North America has to be one of the most educative, informative, and pleasant ways of traveling. Not only does one discover the past through its fortifications, but one can also see the present and, at times, perceive the future.

GLOSSARY OF FORTIFICATION TERMS

Banquette A continuous step or ledge at the interior base of a parapet on which defenders stood to direct musket fire over the top of the wall. A fire step.

Bastion A projection in the enceinte, made up of four sides, two faces and two flanks, which better enabled a garrison to defend the ground adjacent to the main or curtain walls.

Barbette Said of cannon placed over a rampart without the protective embrasures.

Battery An emplacement for artillery.

Berm A line of wooden stakes or logs, 6–8ft (1.8–2.4m) long, planted in the middle of a ditch and pointing vertically.

Counterscarp The outer side of a ditch or moat. *See* Scarp.

Covered way A depression, road or path in the outer edge of a fort's moat or ditch, generally protected from enemy fire by a parapet, at the foot of which might be a banquette enabling the coverage of the glacis with musketry.

Curtain The wall of a fort between two bastions.

Demi-bastion A half-bastion with only one face and one flank.

Ditch A wide, deep trench around a defensive work. When filled with water it was termed a moat or wet ditch; otherwise a dry ditch, or fosse.

Embrasure An opening in a wall or parapet allowing cannon to fire through it, the gunners remaining under cover. The sides of the embrasure were called "cheeks," the bottom called the "sole," the narrow part of the opening called the "throat," and the wide part called the "splay."

En barbette An arrangement for cannon to be fired directly over the top of a low wall instead of through embrasures.

Enfilade fire Fire directed from the flank or side of a body of troops, or along the length of a ditch, parapet, or wall. Guns in the flank of a bastion can direct enfilade fire along the face of the curtain.

Epaulement A parapet or work protecting against enfilade fire.

Fascines Long bundles of sticks or small diameter tree branches bound together for use in revetments, for stabilizing earthworks, filling ditches, etc.

Gabion A large, round, woven wicker cylinder intended to be set in place and filled with earth, sand, or stones.

Gallery An interior passageway or corridor running along the base of a fort's walls.

Gate A main entrance to a fortress.

Glacis A broad, gently sloped earthwork or natural slope in front of a fort, separated from the fort proper by a ditch and outworks and so arranged as to be swept with musket or cannon fire.

Guardhouse The headquarters for the daily guard.

Guérite A small lookout watchtower, usually located on the upper outer corner of a bastion.

Hornwork A work made up of a bastion front; two half bastions and a curtain and two long sides termed branches.

Loopholes Small openings in walls or stockades through which muskets were fired.

Magazine A place for the storage of gunpowder, arms, or goods generally related to ordnance.



A "tent city" for British and American provincial troops on the south shore of Lake George in the summer of 1759. The usual practices of the European armies were equally valid in the American wilderness, the tents neatly laid out with "streets" and supply depots. (Painting by Thomas Davies in 1774 after his field notes. Fort Ticonderoga Museum, Ticonderoga, NY)

Outwork An outer defense, inside the glacis but outside the body of the place. A ravelin is an outwork.

Palisade A high fence made of stakes, poles, palings, or pickets, supported by rails and set endwise in the ground 6–9in. apart. *See* Stockade.

Parapet A breastwork or protective wall over which defenders, standing on banquettes, fired their weapons.

Rampart The mass of earth, usually faced with masonry, formed to protect an enclosed area.

Ravelin An outwork consisting of two faces forming a salient angle at the front and a flank angle to the rear that was usually closed at the gorge. Ravelins were separated from the main body of the place by ditches and functioned to protect curtains.

Redoubt An enclosed fortification without bastions.

Revetment The sloping wall of stone or brick supporting the outer face of a rampart.

Sallyport A passageway within the rampart, usually vaulted, leading from the interior of a fort to the exterior, primarily to provide for sorties.

Sap A trench and parapet constructed by besiegers to protect their approaches toward a fortification.

Scarp The interior side of a ditch or the outer slope of a rampart.

Stockade A line or enclosure of logs or stakes set upright in the earth with no separation between them, to form a barrier 8ft (2.4m)

or more high. Stockades were generally provided with loopholes. The loopholes were reached by banquettes or elevated walks. *See* Palisade.

Tabby A cement-like building material made up of ground oyster shells, lime, and sand, mixed with salt water. Used especially in the southern colonies.

SELECT BIBLIOGRAPHY

Archives:

The National Archives (Kew, United Kingdom), Colonial Office (CO), and War Office (WO) series, maps and plans

Library of Congress (Washington, DC), manuscripts division, George Washington papers

Library and Archives Canada (Ottawa), maps and plans

Archives Nationales (France), Outre-mer (Aix-en-Provence), Colonies, series C11A and Dépôt des Fortifications des Colonies

Publications:

Albert, George Dallas, *The Frontier Forts of Pennsylvania*, 2 Vols., State Printer: Harrisburg, 1916

Bonner, William Thompson, *New York: The World Metropolis 1623–1924,* R. L. Polk & Co.: New York, 1924

Cook, Roy Bird, "Virginia Frontier defenses 1719–1795" in *West Virginia History*, Vol. 1, No. 2, 1940

English, L. E. F., *Historic Newfoundland,* Government of Newfoundland: St John's, 1955

Gallay, Allan (ed.), *Colonial Wars of North America 1512–1763: An Encyclopedia,* Garland: New York, London, 1996

Haris, Cole (ed.), *Historical Atlas of Canada: From the Beginnings to 1800,* University of Toronto Press: Toronto, 1987

Ivers, Larry E., *Colonial Forts of South Carolina 1670–1775,* University of South Carolina: Columbia, 1970

McBride, W. Stephen, McBride, Kim A., and Greg Adamson, *Frontier Forts in West Virginia,* West Virginia Division of Culture and History: Charleston, WV, 2003

Scull, G. D. (ed.), *The Montresor Journals,* New York Historical Society: New York, 1882

Stotz, Charles Morse, *Outposts of the War for Empire,* Historical Society of Pennsylvania and University of Pittsburgh Press: Pennsylvania, 1985

Vrooman, John J., *Forts and Firesides of the Mohawk Country,* Baronet Litho Co.: Johnstown, 1951

Winsor, Justin (ed.), *Narrative and Critical History of America* Vols. III, IV, and V, Houghton, Mifflin: Boston, NY, 1881–89

Other:

Pete and Phil Payette have compiled the outstanding "North American Forts" website, which attempts to list every fort since European discovery in North America as well as fortifications elsewhere that have had American garrisons. The result is a truly vast database listing thousands of forts with a short history for each entry and links to other sites such as online articles regarding the fort in question. http://www.northamericanforts.com

INDEX

References to illustrations are shown in bold. Plates are shown with page and caption locators in brackets.

First published in 2010 by Osprey Publishing
Midland House, West Way, Botley, Oxford OX2 0PH, UK
44-02 23rd St, Suite 219, Long Island City, NY 11101, USA

E-mail: info@ospreypublishing.com

A CIP catalog record for this book is available from the British Library.

ISBN: 978 1 84908 197 9
E-book ISBN: 978 1 84908 198 6

Editorial by Ilios Publishing Ltd, Oxford, UK (www.iliospublishing.com)
Cartography: Bounford
Page layout by Ken Vail Graphic Design, Cambridge, UK (kvgd.com)
Typeset in Myriad and Sabon
Index by Sandra Shotter
Originated by PPS Grasmere Ltd, Leeds, UK
Printed in China through Bookbuilders

11 12 13 14 15 10 9 8 7 6 5 4 3 2 1

Osprey Publishing are supporting the Woodland Trust, the UK's leading woodland conservation charity, by funding the dedication of trees.

www.ospreypublishing.com

ACKNOWLEGEMENTS

The author wishes to acknowledge the very kind assistance of Brian Leigh Dunnigan together with the staff (amongst whom are many former colleagues) at forts administered by the United States National Park Service, New York State historic sites, the State Museum of Pennsylvania, the National Historic Sites of Parks Canada, Library and Archives Canada (Ottawa), the Library of Congress (Washington, DC), the Research Centre of the Canadian War Museum (Ottawa), the Archives Nationales (France), the National Archives (UK), and the library of the University of Ottawa.

AUTHOR'S NOTE

This works examines a multitude of forts, large and small, that dotted the American colonies that became the United States and Canada (insofar as its British establishments are concerned). That there were far too many to list is obvious, but they all formed part of defense systems designed to protect settlers from aggression coming either from the wilderness or from the sea. Many forts were attacked, some fell, and some were never challenged. While many individual or regional studies of the forts exist, this book presents, with a wealth of artwork and images, the overall view of the fortification systems of the British, Dutch, and Swedish colonies from the 1500s to the 1760s.

EDITOR'S NOTE

Unless otherwise indicated, all images in this book are from the author.

ARTIST'S NOTE

Readers may care to note that the original paintings from which the color plates in this book were prepared are available for private sale. All reproduction copyright whatsoever is retained by the Publishers. All enquiries should be addressed to:

Alina Illustrazioni, C. S. Montecchio, San Lorenzo 234, 52044, Cortona Arezzo, Italy

The Publishers regret that they can enter into no correspondence upon this matter.

THE FORTRESS STUDY GROUP (FSG)

The object of the FSG is to advance the education of the public in the study of all aspects of fortifications and their armaments, especially works constructed to mount or resist artillery. The FSG holds an annual conference in September over a long weekend with visits and evening lectures, an annual tour abroad lasting about eight days, and an annual Members' Day.

The FSG journal *FORT* is published annually, and its newsletter *Casemate* is published three times a year. Membership is international. For further details, please contact:
secretary@fsgfort.com
Website: www.fsgfort.com

THE HISTORY OF FORTIFICATION STUDY CENTER (HFSC)

The History of Fortification Study Center (HFSC) is an international scientific research organization that aims to unite specialists in the history of military architecture from antiquity to the 20th century (including historians, art historians, archeologists, architects and those with a military background). The Center has its own scientific council, which is made up of authoritative experts who have made an important contribution to the study of fortification.

The HFSC's activities involve organizing conferences, launching research expeditions to study monuments of defensive architecture, contributing to the preservation of such monuments, arranging lectures and special courses in the history of fortification and producing published works such as the refereed academic journal *Questions of the History of Fortification*, monographs and books on the history of fortification. It also holds a competition for the best publication of the year devoted to the history of fortification.

The headquarters of the HFSC is in Moscow, Russia, but the Center is active in the international arena and both scholars and amateurs from all countries are welcome to join. More detailed information about the HFSC and its activities can be found on the website: www.hfsc.3dn.ru

E-mail: ciif-info@yandex.ru